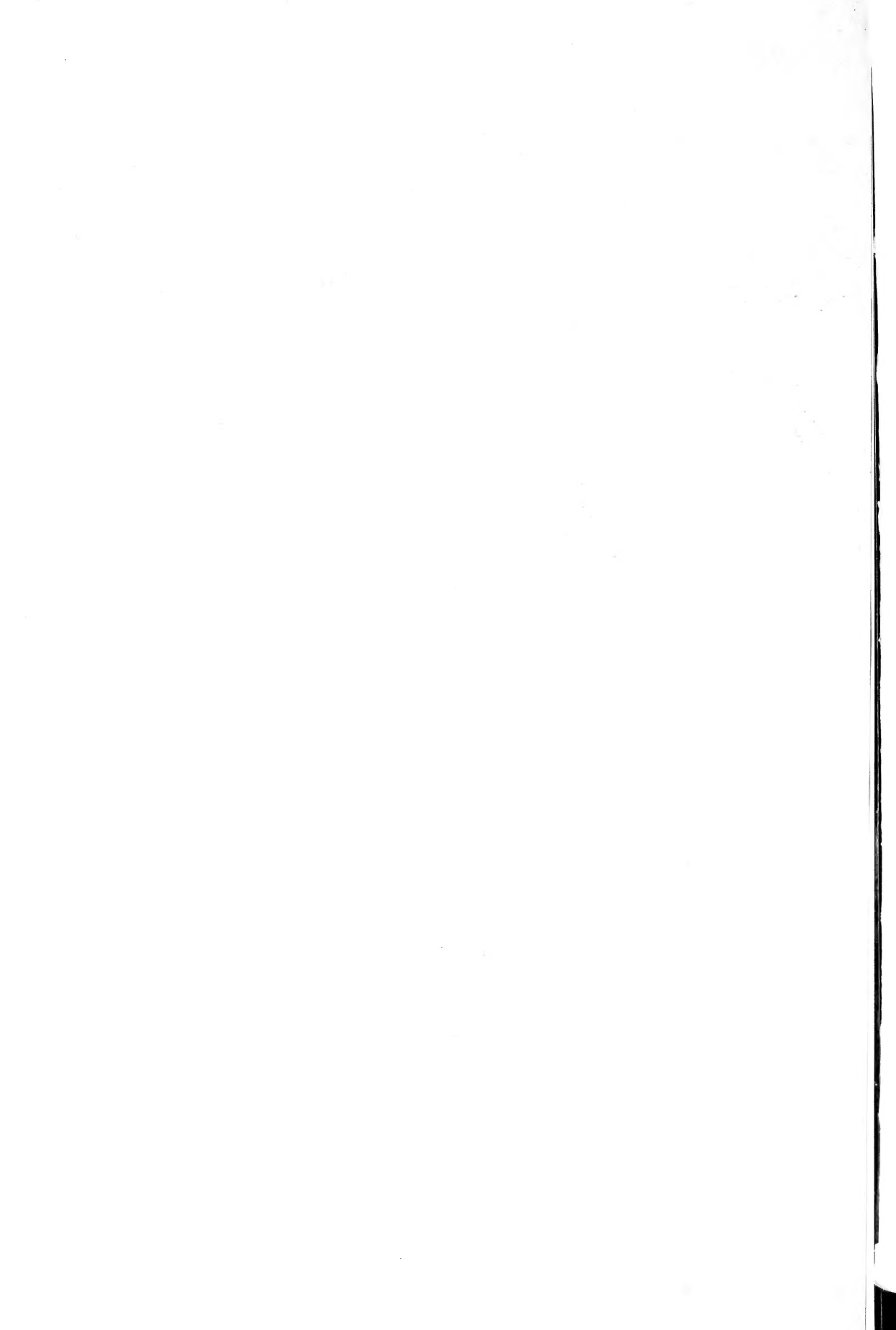


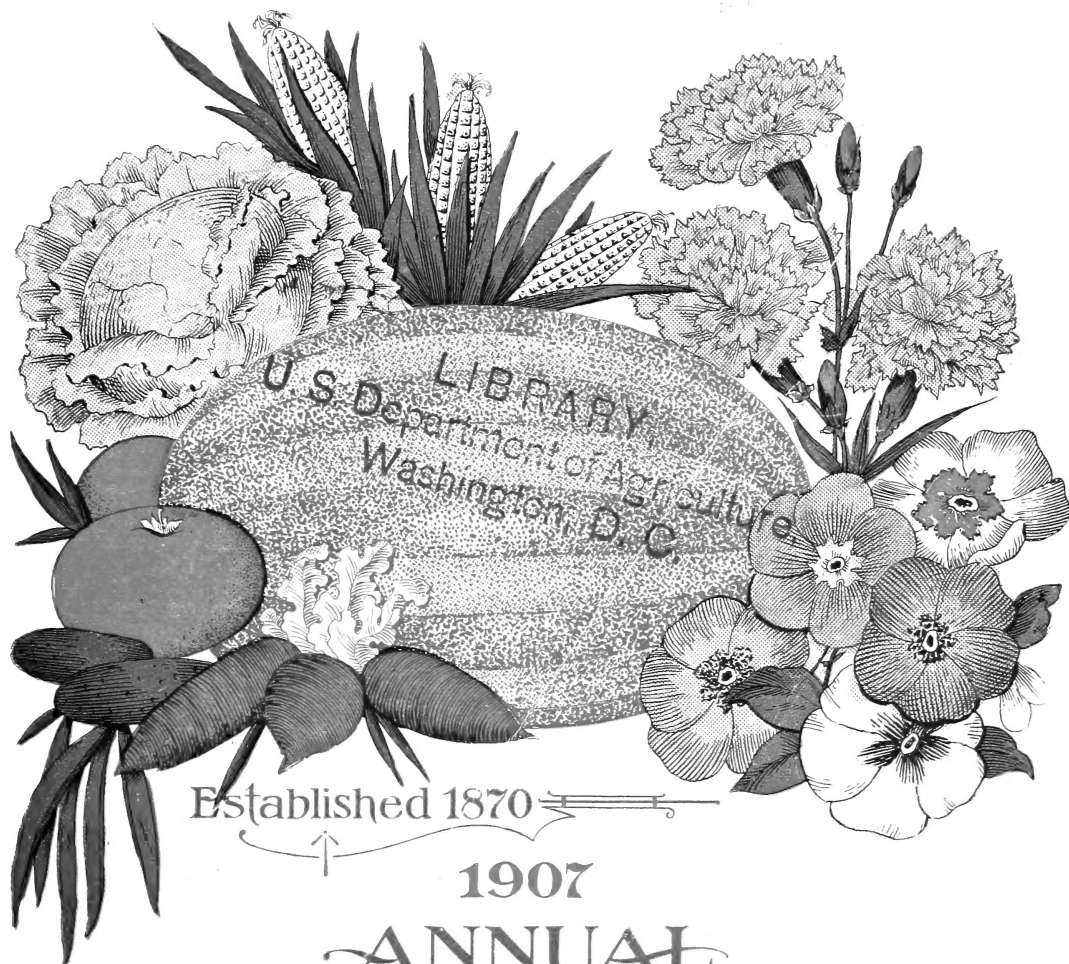
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Do not assume content reflects current scientific knowledge, policies, or practices.



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SEED HORTICULTURAL AND POULTRY GUIDE

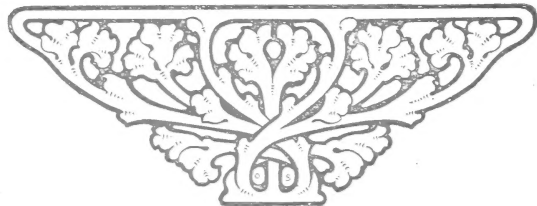


MISSOURI VALLEY SEED CO.

110 SOUTH 4TH ST.

ST. JOSEPH, MO.

Annual Greeting to Our Patrons



WE BEG again to offer you our Annual Seed and Horticultural Catalog and trust that you have been blessed with the same prosperity that has come to most of us through abundant crops the past year. This must first be attributed to good seed, second to generous nature. We do not claim to be the largest seed house on earth, nor do we claim to be the only house selling good seed. We know there are many good seed houses soliciting your trade. We do not show any flaring lithographs or promise you impossible results. We solicit your valued patronage, and in doing so must offer you some advantages. As heretofore, we do not attempt to compete **merely in price**. Our aim is to **excel** in quality, and the fact in spite of fierce competition we still maintain one of the largest mail order seed trades in the West. We are prepared now for a still greater demand.

Our hearty thanks are due to thousands of our customers for their recommendations to friends and neighbors such kind words have made possible the extension of this business to its present proportions.

The Advantages We Offer You For Your Business

First—Our Seeds are contracted from the most reliable Northern growers.

Second—To protect our customers against failure of crops we personally test all seeds under sunlight in a greenhouse, the only natural way to prove first-class germination.

Third—We are the only Seed House in the entire West that carries a full line of Horticultural Supplies, such as orchard spray pumps, chemicals of all kinds for spraying which is necessary to successful fruit growing.

Fourth—We carry a full line of Poultry Supplies and Remedies, Incubators, Special Chick Feed, etc.

Fifth—Our superior shipping facilities, having 10 great trunk lines stretching out in all directions, insuring prompt shipments.

In conclusion, we can furnish you everything listed in our catalog necessary in the Seed, Horticultural and Poultry line at prices that are right for reliable goods.

With hearty good wishes for the new year, we are,

Yours truly,

References:

The Mercantile Agencies.
Missouri Valley Trust Co.
or any Bank in St. Joseph.
Any Express Company.

MISSOURI VALLEY SEED CO.
W. A. Duncan, Mgr.

ORDER FOR

ESTABLISHED 1870

110 SOUTH FOURTH STREET

Name

Post Office

County

State

If different from Postoffice, }
give name of town or city in }
which your nearest freight or }
express office is located. }

Cash \$.....

P. O. Order \$.....

Exp. Order \$.....

Draft \$.....

Stamps  \$.....

{ Please do not
send personal
bank checks. } Total \$.....

Date 1907

Enclosed find \$.....for which please send me the following:

[illegible]

25^c Worth of Seeds Extra

**is allowed on each ONE DOLLAR sent
for Seeds by the PACKET and OUNCE**

excepting only Cauliflower and Flower Seeds priced at more than 25c an ounce. This is a discount of 20 per cent on prices by the packet and ounce—with the one condition that it cannot be allowed on orders of less amount than one dollar. For example, should an order amounting to \$3.00 include \$2.00 worth of seeds in packets and ounces, you are entitled to deduct 20 per cent (one-fifth) on these, which would be 40c, sending us \$2.60 net; while should the entire order be composed of packets and ounces you would deduct 60c, remitting only \$2.40. In other words, this discount makes all 5c packets cost but 4c each, and 10c packets and ounces cost 8c net. It should be understood that this discount does not apply to seeds by the quarter-pound, pound, pint, quart, peck or bushel.

Seeds Mailed Postpaid In considering our prices, both of new and standard Garden Seeds, please bear in mind that we pay the POSTAGE by the packet, ounce, quarter-pound and pound.

How to Order Please be careful to sign your name, postoffice, county, and state on each and every letter sent us. Cash should accompany the order. You can remit at our risk either by postoffice order, bank draft, express order, or cash by registered letter. On orders of \$1.00, or more the cost of remitting by any of these methods may be selected in extra seeds free. We are responsible for safe arrival of seeds in first-class condition—therefore you are thoroughly protected against any possible loss. We accept clean postage stamps the same as cash.

YOU RUN NO RISK in sending cash with the order. Our reputation as trustworthy and experienced Seedsmen is well known, while our financial responsibility can be ascertained by making inquiry of any Bank, Trust Company or Wholesale Merchant who subscribes to either of the Commercial Agency Reports. We make no charge for bags or boxes.

Buy Your Seeds By Mail You will be sure then of getting the **BEST SEEDS THAT GROW.** All you have to do is to make out a list of the seeds wanted, figure up the total at catalogue prices, as quoted herein, deducting (if your order is for one dollar or more) one-fifth from the value of seeds in packets and ounces, and enclose the net sum.

Our List of Vegetable Seeds

embraces all the well-known standard varieties, and such of the newer sorts as have proven of value. There are an endless number of new varieties introduced each year, and it is impossible for any one seedsman to give each a place in his catalog. In the following pages we have listed only such varieties as are the best types of the class they represent, and have proven satisfactory in our soils and climate.

If you are a market gardener and buy large quantities, write us for special prices. Do not be influenced by the big flaring catalogues and descriptions sent out by some seed houses. Those who use such methods rely on new customers each year, very seldom getting a second order. Our ambition and aim is to increase the well satisfied trade we now have and which comes back to us each succeeding season. You would do well to join those who are satisfied.

Asparagus

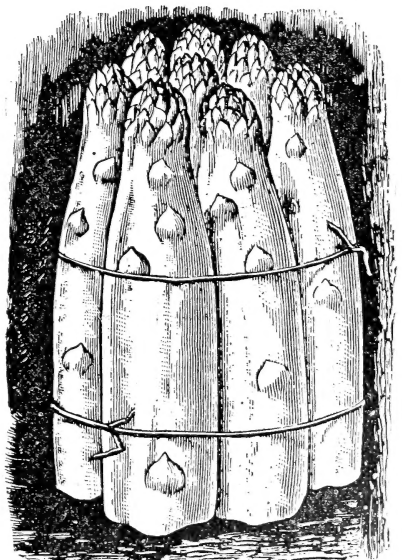
Asparagus is one of the earliest and most profitable of spring vegetables. No family garden should be without its asparagus bed. A bed of about 100 plants will furnish an abundant supply for an ordinary family.

Conover's Colossal—The standard variety. Very productive. Shoots of large size and excellent quality. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 15c, lb. 40c.

Columbian Mammoth White—A new sort, producing very large thick white shoots, free from any green color. A pure white asparagus of large size. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 15c, lb. 50c.

Asparagus Roots

Strong two-year-old roots. We recommend planting the roots, as two years' time is saved by doing so. Roots per 100, \$1.00; by express or freight at purchaser's expense.



Conover's Colossal.

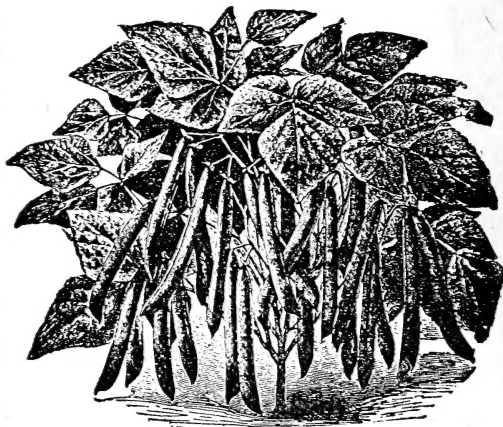
BEANS=Dwarf or Bush

Culture—For the best crops, beans require good rich soil and frequent hoeing. The young plants are very tender and cannot withstand even slight frost. The seed should not be planted until the soil has become well warmed and all danger of frost is over. Spade or plow deeply, and plant in rows two feet apart, scattering the seed about three inches apart in the row and cover two inches deep. Hoe frequently, but never when the foliage is damp from dew or rain. Hoeing should be done shallow, so that the roots are not injured.

The hardier green podded sorts, as **Mohawk**, **Stringless Green Pod**, **Early Valentine**, are the first to be planted, followed by the **Valentine Wax**, **Black Wax**, **Improved Golden Wax**, **Davis' Kidney Wax**. Wardwell's Kidney Wax makes broad, handsome pods, and is excellent to grow for main crop for market or canning. Beans may be planted up to within six weeks of frost. One quart of seed will plant one hundred feet of row.

Green Podded Sorts

Stringless Green Pod—As its name implies, this new sort is perfectly stringless at all stages of growth. It is the only Dwarf Green Podded Bean in cultivation that is always absolutely stringless in all stages of growth, and we recommend it highly. It is extremely early, becoming fit for use in about six weeks from planting; is vigorous and hardy, and can be planted early; often ready for picking two weeks ahead of the Valentine, and fully its equal in quality. The pods are long and straight, fleshy and thick, of superior quality, flavor, tender and brittle; immensely productive. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$6.75.



Stringless Green Pod.

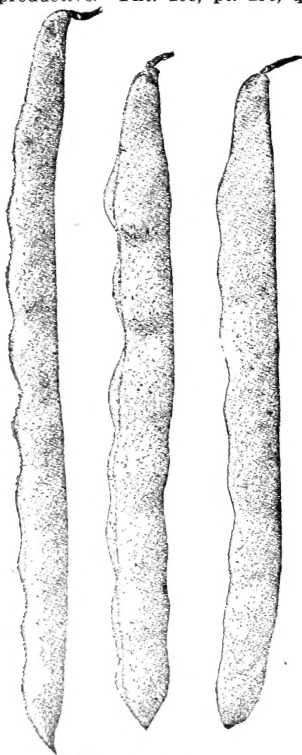
Early Mohawk—Very hardy; can be planted very early and will stand a slight frost without apparent injury. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$5.50.

Refugee, or 1000-to-1—The standard pickling sort; large pods and very productive. Pkt. 10c, pt. 15c, qt. 25c, gal. 70c, bu. \$5.25.

Giant Pod Stringless—A mammoth podded selection from the original Stringless Green Pod. Not quite so early as the latter, but more showy and possesses the same good qualities. Pkt. 10c, pt. 20c, qt. 30c, gal. 90c, bu. \$6.00.

Improved Red Valentine—One of the best and the standard green podded sort; very productive and one of the earliest. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$5.50.

Long Yellow Six Weeks—An old favorite; early and very productive. Pods long, flat and of good quality. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$5.50.



Jones' Stringless.

Jones' Stringless Wax—A new, round podded sort that outyields them all. Plants are hardy and practically rust-proof. If allowed to ripen the dry beans make excellent shell beans for winter use. Pkt. 10c, pt. 20c, qt. 30c, gal. \$1.00, bu. \$7.00.



Improved Red Valentine.

Shell or "Navy Beans"

Prolific Tree—Enormously productive; will yield fifty bushels of shelled beans per acre. The dry beans have the appearance of the common White "Navy." The plant forms a strong upright tree, about twenty inches high, bearing the pods well up so that they do not touch the ground. Pkt. 5c, pt. 10c, qt. 20c, gal. 70c, bu. \$4.50.

If Beans are wanted sent by Mail, 1c per pt., 15c per qt. must be added to pay postage. We pay postage on packets.

BEANS--Continued

Wax or Yellow Podded
Sorts

Prolific Black Wax—An improvement on the old Black Wax; very early and productive. Pods of a rich, waxy color, tender, and of excellent quality. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$6.75.

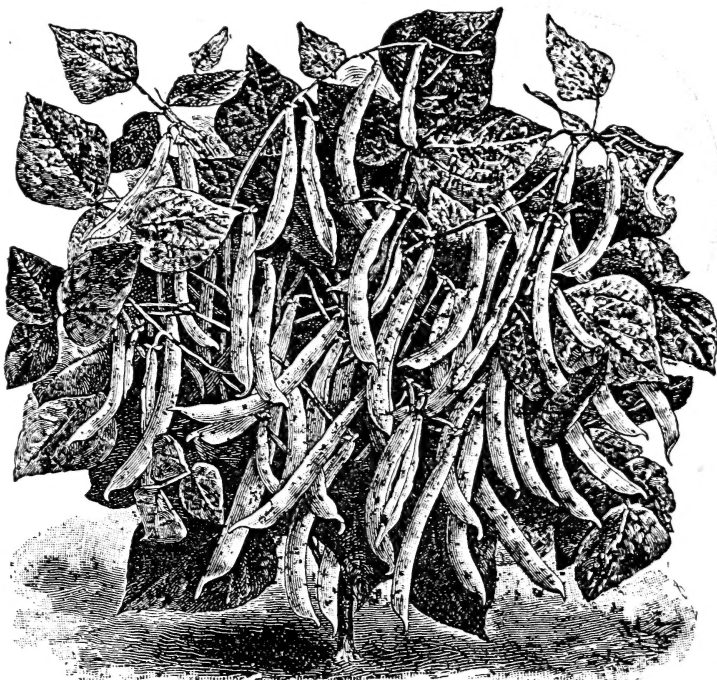
Improved Rust Proof Golden Wax—The standard variety for general use. Long, straight pods, of a clear yellow color. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$6.75.

Wardwell's Kidney Wax—The largest wax variety and one of the best. A strong grower; the long, handsome pods are stringless, brittle and of finest flavor. A heavy cropper, making it a very profitable sort for the market gardener. Pkt. 10c, pt. 20c, qt. 30c, gal. \$1.00, bu. \$7.50.

Valentine Wax—The earliest of all wax beans. Similar in shape and form of growth to the Green Valentine, but the color is a rich waxy yellow. Pods are round, meaty and almost stringless. A popular sort with market gardeners because of its extreme earliness and great productiveness. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$7.00.

Davis' Kidney Wax—Hardy, productive, and free from rust. Pods long, flat, straight and handsome; a valuable variety for the market gardener and canner; a good shipper. Pkt. 10c, pt. 20c, qt. 30c, gal. \$1.00, bu. \$7.00.

Currie's Rustless Golden Wax—A black seeded sort of extreme earliness and great productiveness. Pods of moderate size, flat in shape, but of fine flavor; color a light golden yellow. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$7.00.



Prolific Black Wax.



Pole and Dwarf Limas

Burpee's Bush Lima—It grows eighteen to twenty inches high, forming a strong and vigorous bush on which large pods are produced in great numbers. The beans are very large, easily shelled, and of the finest quality. Pkt. 10c, pt. 20c, qt. 35c, gal. \$1.10.

Henderson's Bush Lima—Of true bush form. Enormously productive; beans small, but of excellent flavor. Pkt. 10c, pt. 20c, qt. 35c, gal. \$1.00.

King of the Garden Pole Lima—The favorite tall growing sort. A vigorous grower; pods large and well filled with beans of rich flavor; favorite with gardeners. Pkt. 10c, pt. 20c, qt. 35c, gal. 90c.

Pole or Running

White Creaseback—Extremely early and productive. Pods of a beautiful silvery green, fleshy and of fine quality. An excellent market garden variety, as almost all the pods are ready for picking at one time. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$7.00.

Kentucky Wonder, or Old Homestead—Green podded; early and productive. Pods grow in large clusters and are very rich and tender; almost round, and sometimes nine or ten inches long. Excellent for snap beans. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$6.25.

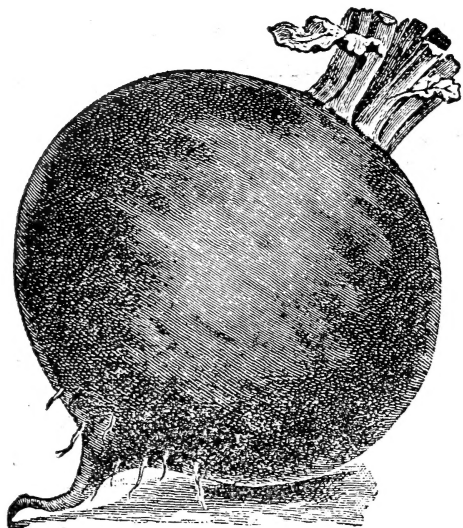
Lazy Wife's—This variety has become immensely popular in all sections of the country. It is the best green podded pole bean. Pkt. 10c, pt. 15c, qt. 25c, gal. 90c, bu. \$6.50.

Horticultural, or Speckled Cranberry—Short, broad, green pods, which become streaked with red when nearly ripe. As a shell bean, either green or dry, it cannot be surpassed in quality. The beans are large and easily shelled. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$5.50.

Cut Short, or Corn Hill—An old popular sort for planting among corn. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$5.75.

If Beans are wanted by Mail, 10c per pt., 15c per qt. must be added to pay postage. We pay the postage on packets.

Table Beets



Crimson Globe.

Crimson Globe—This is one of the finest beets yet introduced. Roots are not large, but very handsome. Round, and a clean, smooth surface. Leaves very small, with slender stems. We can recommend this beet for bunching, as its color and shape make them quick sellers.

Early Egyptian—The well-known early variety. Color extra dark, shape flat, quality excellent.

Bastians—An extra early variety, much esteemed by market men East and South. Color light.

Half Long Blood—One of the best for winter use. The roots are only half as long as the Long Blood, but weigh as much on account of their thickness. They are always smooth and handsome, and their rich, dark red flesh is very sweet, crisp and tender, never becoming woody, even in the exposed portions.

Long Smooth Blood—The standard long late sort. Very dark blood-red flesh; quality fine.

Edmand's Early Blood Turnip—The best sort for general crop. In quality one of the finest; exceedingly dark; shape globular, having only one tap root. Very popular with market men.

Improved Blood Turnip—An improved variety of the Early Blood turnip, of deep blood-red color; fine form and flavor. An excellent market sort.

Detroit Dark Red Turnip — Quality good, sweet and tender; color deep

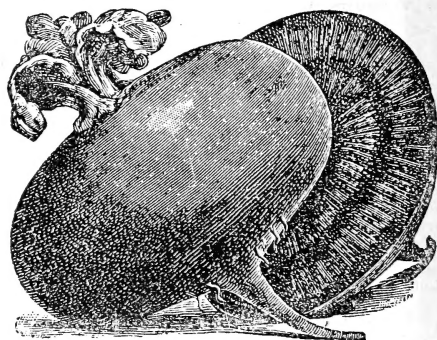
red; roots are turnip shaped, with small tap roots.

Dewing's Early Blood Turnip—A good variety for main crop. Keeps well. Like Edmand's, but lighter color.

Lentz Turnip—Of similar size and shape as the Bastian turnip; top small; early and profitable.

Crosby's Egyptian Beet

A selection from that old market beet, Early Egyptian, which retains the earliness of the parent stock, and has added thickness, giving it a more desirable shape. It is the deepest red, almost black in color, and is of finer quality than the Egyptian, being sweeter and even more tender and smoother. A very desirable sort for small beets for early market, as it is in presentable market shape quicker than any other variety. It is a very rapid grower, and can be sown outside as late as July.



Crosby Egyptian.

Cattle Beets or Mangels

Long Red—A large, long variety grown for stock feeding. It stands up well above the surface; color light red; flesh white and rose colored.

Yellow Globe—Globular shaped roots. More productive than Long Red in shallow soil. Very nutritious and a good keeper.

Golden Tankard—Shape cylindrical; color deep rich yellow; flesh yellow, circled with white. Unequaled for feeding stock.

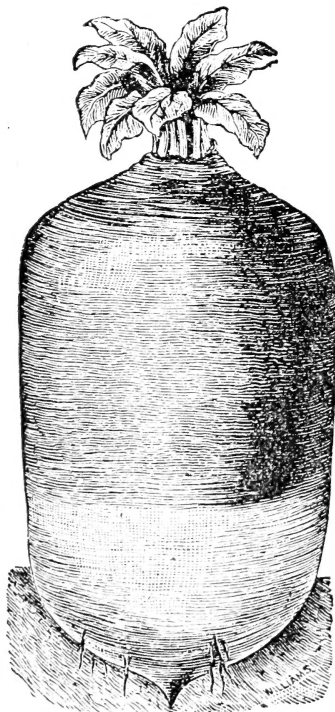
Orange Globe—We think this one of the best varieties of mangel wurzle grown for stock feeding. It has exceedingly small tops and few leaves; leaf stalks and blades green; roots medium sized, uniformly globe shaped, having very small tap and few side roots; color of skin deep orange yellow; flesh white and of excellent quality. The roots grow almost entirely above ground, making them admirably adapted to shallow ground and very easy to harvest.

Sugar Beets

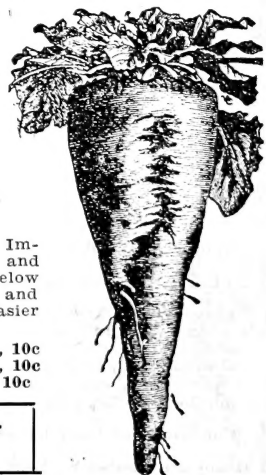
Vilmorin's Improved Sugar—In general the most desirable beet for the factory is the one containing the largest percentage of sugar. In this variety we have one of the richest beets in cultivation; not only that, but it will do better on new lands, suffer less from an excess of nitrogen, and will keep the best of any. In size it is medium or little below, yielding from ten to sixteen tons per acre, and containing from 16 to 18 per cent of sugar.

Klein Wanzleben—A little larger than Vilmorin's Improved, yielding from twelve to eighteen tons per acre, and containing about the same amount of sugar. It grows below the surface, and the green leaves are rather large and spreading, with wavy edges. A little hardier, and easier grown than Vilmorin's Improved.

Table Beet Pkt., 5c; oz., 10c
Mangels Oz., 5c; ¼ lb., 10c
Sugar Beet Oz., 5c; ¼ lb., 10c

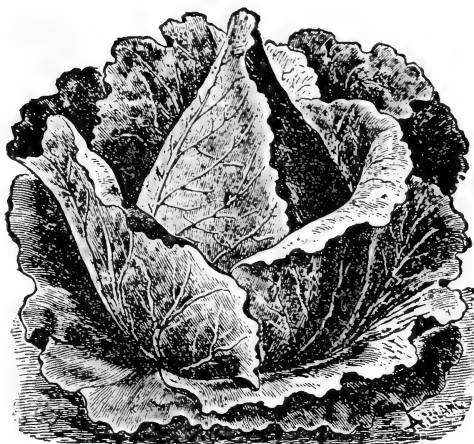


Golden Tankard Mangel.



Sugar Beets, as well as Mangels, are most valuable for stock feeding. There is no better paying root crop than either. They keep well, and, as a change of food, are excellent.

Cabbage



Early Jersey Wakefield.

Mammoth Rock Red—The largest heading of any of the red sorts; of deep rich color and excellent quality. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 80c.

Sure Head—A fine variety for main crop. A good shipper and sure header. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c.

Holland—The favorite winter cabbage with market gardeners. It is as hard as a rock, and a small head will weigh as much as a large head of any other variety. The leaves lap over and make a head in which there is no waste. Pkt. 5c, oz. 30c, $\frac{1}{4}$ lb. \$1.00.

Premium Flat Dutch—This variety of late cabbage is a standard in all sections for winter use. Our selected stock is unsurpassed. It makes a large, solid head, which keeps long without bursting, and is adapted to a more variety climate than probably any other variety we grow. Our stock of Premium Flat Dutch has given excellent satisfaction both north and south for many years, and its great popularity at home puts its merit beyond question. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c.

Large Late Drumhead—A late variety of large size. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 50c.

Start the children right. Set apart space in the yard for a garden. No matter how small a piece of ground, the child will derive both pleasure and profit from it. The patience and care which must be exercised is an education in itself, while the nature study and good wholesome exercise are bound to be a benefit and create ambition.



Premium Flat Dutch.

Early Jersey Wakefield Cabbage—Our select stock. This is one of the most important varieties in the list. Great care must be exercised in the growing of the seed to have it pure and true to type. We give especial attention to the growing of our Wakefield stock, and its uniform excellence is a source of gratification to us. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 80c.

Early Spring Cabbage—The earliest flat head. As early as Jersey Wakefield. Yields one-third more than the early pointed heads. Solid, uniform and finely grained heads. Stem is short and extends but little into the head. Entirely free from any rankness of flavor. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 80c.

Early Winingstadt—An early variety of excellent quality; not as early as the Wakefield. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 50c.

Henderson's Early Summer—A standard summer variety. We have the true stock. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c.

Fottler's Early Brunswick—An early fall variety, well known and popular. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c.

All Head Early—One of the finest early flat-head cabbages. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c.

Early York—A standard pointed head variety, second early. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 50c.

Early Dwarf Flat Dutch—An early cabbage of good size. Heads are flat and very solid. Oz. 20c, $\frac{1}{4}$ lb. 75c, lb. \$2.00.



Holland Cabbage.

Danish Ball Head—A good main crop variety; popular with many of the gardeners. Similar to our Holland, but not so uniform in heading. Oz. 20c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

Savoy Green Globe—Deep green. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 75c.

Savoy Im. American—The finest flavored of all the cabbage family; large and solid. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 75c.

NOTE THIS

We exercise exceptional care in growing and selecting our cabbage seed. Not only are the plants grown from the best stock, but they are also inspected carefully before being put away for the winter. We can assure our customers that it is impossible to get better seed.

For the earliest supply, seed may be sown in September and the plants wintered in cold frames, or seed started in hot-beds or cold-frames early in the spring. For the fall crop the seed should be sown early in June, and the young plants transplanted to the rows during the latter part of July. One ounce of seed will sow 300 feet of drill; two ounces sown thinly should provide enough for one acre.



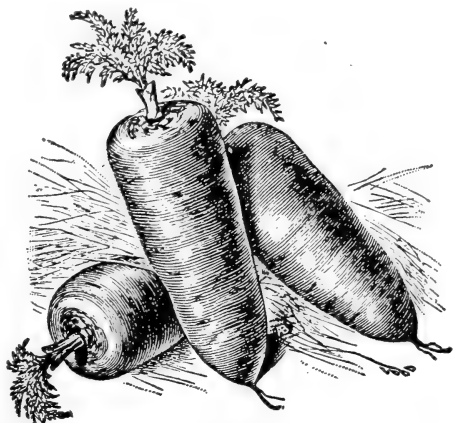
Golden Self Blanching.

✓ **Large White Belgian**—Grown one-third out of the ground. Root pure white, green above ground, with small tops. Flesh rather coarse. $\frac{1}{4}$ lb. roots, on light, rich ground, grow to a large size, and are extensively grown for stock feeding. Pkt. 5c, oz. 10c.

✓ **Early Short Horn**—A fine early variety; good for home use. Eastern market gardeners use this sort for bunching. Pkt. 5c, oz. 10c.

✓ **Guerande, or Ox Hart**—Tops small for the size of the root, which are comparatively short, but often reach a diameter of seven inches, terminating sorts would not thrive in it. When young, excellent for table use, ing abruptly in a small tap root. Flesh, bright orange, fine grained and sweet. This is a desirable variety for soil so hard and stiff that longer and when mature equally good for stock. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c.

✓ **Danvers**—Grown largely on account of its great productiveness and adaptability to all classes of soil. Taper medium size, coarsely divided. The smooth and handsome roots are deep orange, of medium length, tapering uniformly to a blunt point; flesh sweet, crisp, tender and of a deep orange color. This is a popular field variety, and although the roots are shorter they produce as large a bulk as the longer field sorts and are more easily harvested. Pkt. 5c, oz. 10c.



Danvers.

Celery

Culture—Sow early in the spring as soon as ground can be put in good, fine condition. The surface of the seed bed should be well raked and made as fine as possible. Sow thinly and cover very lightly; a little sprinkling of earth is all that is necessary. Select a moist place and water if the bed becomes dry. An old sack or carpet thrown over the bed will assist in retaining the moisture; this should be removed as soon as the plants appear. When the plants have reached a height of about four inches, lay off shallow trenches about two feet apart, and set out a portion of the plants in good, rich, well-manured soil, about ten inches apart, cutting off the tops. In about two weeks set out another portion, and repeat at intervals of a few weeks until the required number has been set out. This will provide a succession throughout the season. Water during dry weather and keep them growing. Hoe frequently, gradually drawing the soil up about the plants as they grow.

Golden Self-Blanching—The standard and best early sort. Of dwarf, compact habit, with thick, solid stalks, which blanch easily to a clear waxy yellow. Stalks crisp, free from stringiness and of delicious flavor. Our stock of seed is the finest obtainable. Pkt. 5c, oz. 30c, $\frac{1}{4}$ lb. 90c, lb. \$3.25.

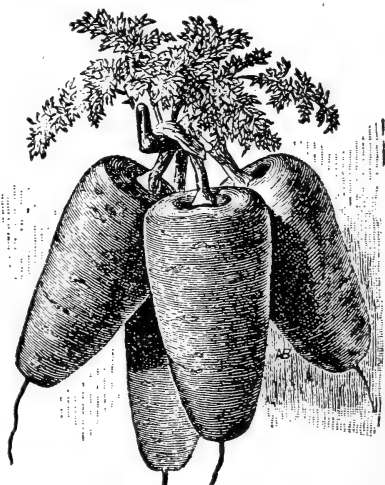
White Plume—A well-known sort; is early, handsome and branches easily. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c, lb. \$2.00.

Giant Pascal—The very best keeper. When blanched it is of a beautiful yellowish white color; crisp, solid and of a delicious nutty flavor. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c, lb. \$1.75.

Celeriac, or Turnip Rooted Celery—For seasoning and garnishing. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 30c, lb. \$1.00.

Carrots

✓ **Improved Long Orange**—The most popular of the older sorts for farm use on mellow soil. An improvement obtained by years of careful selection of the best formed and deepest colored roots of the old Long Orange. Roots comparatively shorter than the Long Orange and smoother, but so uniform and true that the bulk of the crop will be greater. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c.



Chautenay Carrot.

CARROTS—For Stock Feeding

These are esteemed highly as a wholesome and nutritious addition to the winter feeding of stock when dependent on grain and dry forage. They are easily raised and keep in excellent condition when properly stored.

✓ The most popular **Improved Short White** is thick at the shoulder, and tapers rather quickly, being from six to eight inches in length.

✓ The **Large White** and **Yellow Belgian** are long and slender; as fully one-third to one-half of the root grows above the surface, they are, however, easily pulled. They differ only in color of the flesh, as indicated by their respective names.

✓ **Long Orange** and **St. Vallery** are also very productive in deep soils.

All varieties of Field Carrots, pkt. 5c, $\frac{1}{4}$ lb. 15c, lb. 50c.

Cauliflower

Early Snowball—The leading cauliflower among cauliflower growers, and unquestionably the purest strain of "Snowball" cauliflower seed to be had. Heads uniform, of desirable market size and of snowy whiteness.

After seven years' competitive tests it is pronounced by expert cauliflower growers to be the best for both early and late planting. Successful frame growers of cauliflower say that under glass culture our Snowball outclasses any strain of cauliflower seed known to them. This strain of ours is their favorite for early, for late and for forcing. Strong recommendations, surely. **Pkt. 15c, oz. \$2.25.**

Large Algiers—A valuable late sort, sure to head, of the best quality, and very popular with market gardeners everywhere. Plant large, but of upright growth, the leaves protecting the heads so that they will endure uninjured a frost that would ruin other sorts. One of the very best of the late sorts. **Pkt. 5c, oz. 80c.**

Superior stocks are necessary to the prosperity of the market planter. The inferior article may be more attractive at the beginning, because it costs less, but the superior seed gives the more valuable product. You cannot afford to do without the best.

Cucumber

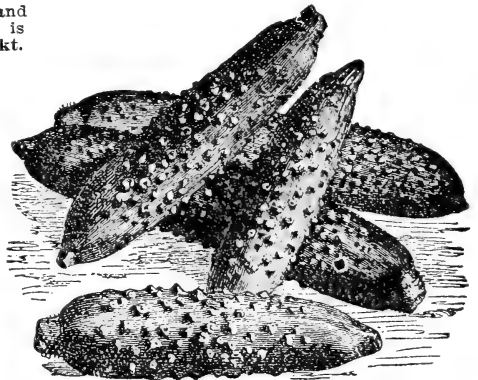
Culture—Newly broken prairie or a rich sandy bottom is the soil best suited to cucumbers. For a very early crop the seed may be planted in small berry boxes in the hot-bed or window in the house during March and transplanted to the open when all danger of frost is past. When setting them out the boxes can be easily cut away without disturbing the roots. The first planting out-of-doors may be made in a sunny situation at about the time cherry trees are in bloom. Plant in hills 4x4 feet, dropping five or six seeds in a hill. For main crop sow the seed thickly in rows four to five feet apart at corn planting time. For pickles plant in middle summer. The cucumbers should be gathered as soon as they reach their proper size. The vines will soon stop bearing if the fruits are allowed to ripen. An acre of cucumbers should produce about 150 bushels of pickles. Two or three pounds of seeds are required for an acre. When insects attack the vine dust with Slug Shot or other similar insect powder.

Early Cluster—The short, thick fruit is produced in clusters close to the stem. Early and productive. **Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 60c.**

Early Frame—Very early and productive. Fruits are straight, tapering at the end, and of a bright green color. Flesh crisp and tender. Excellent for both pickling and table use. **Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 60c.**

Arlington—A strain of White Spine, and very popular with market gardeners. It is very early, of fine salable green color. **Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 75c.**

Improved White Spine—An excellent variety for slicing; early and prolific; handsome and straight, dark green fruits. Flesh tender and of highest quality. **Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 70c.**



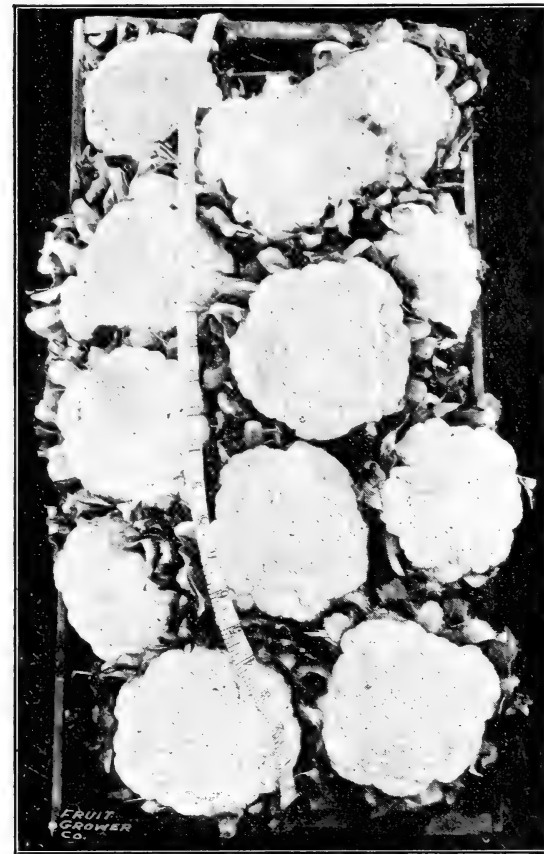
Early Frame.

Boston Pickle, or Green Prolific—A favorite pickling sort and very productive; dark green, crisp and tender. **Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 70c.**

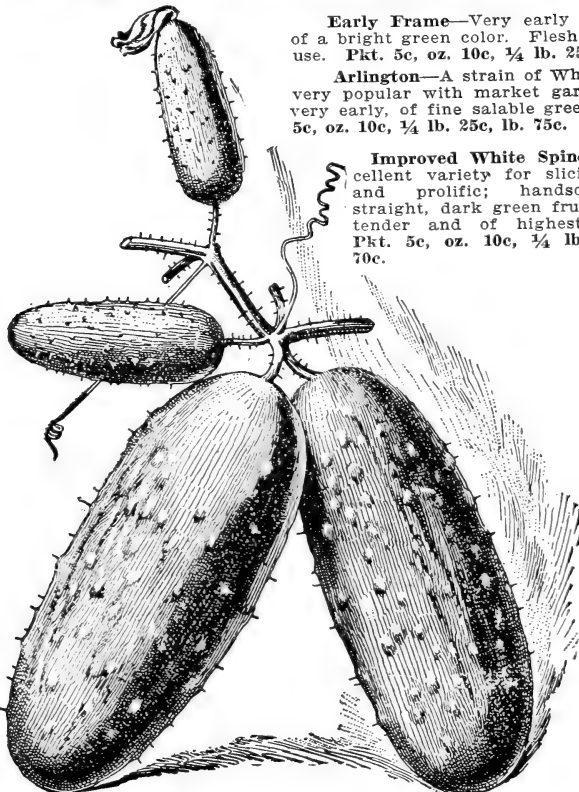
Cool and Crisp—An excellent variety for pickling and slicing. Early and very productive. Fruit slightly pointed at the ends; of desirable shape and color. **Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 70c.**

Giant Pera—A mammoth variety, very long, dark green, and of good quality. **Pkt. 5c, oz. 10c, ¼ lb. 30c, lb. \$1.00.**

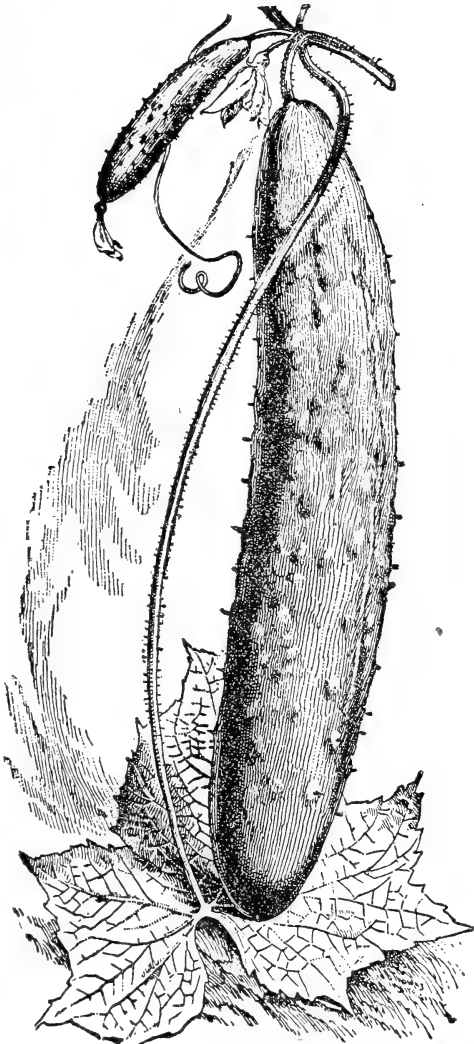
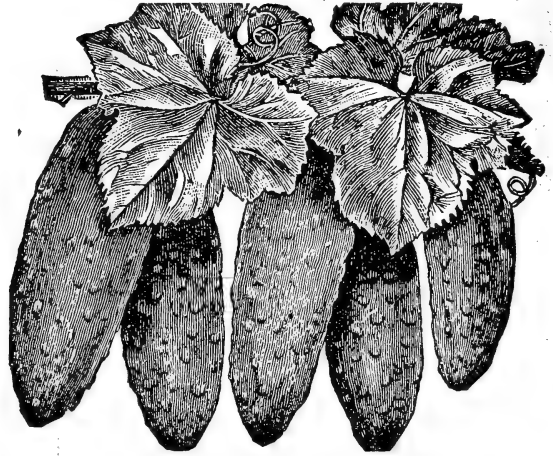
Everbearing—Wonderfully prolific and bears continually the entire season; blossoms and cucumbers at all stages of growth are found on the same vines. If the fruits are gathered as they become fit for use, the vines will go right ahead blooming and bearing all season. It is one of the earliest sorts and a heavy cropper. The cucumbers will average about five inches in length and are of good form and color. An excellent sort for small pickles. **Pkt. 5c, oz. 10c, ¼ lb. 30c, lb. 90c.**



Henders is Early Snowball Cauliflower.



Early Cluster.

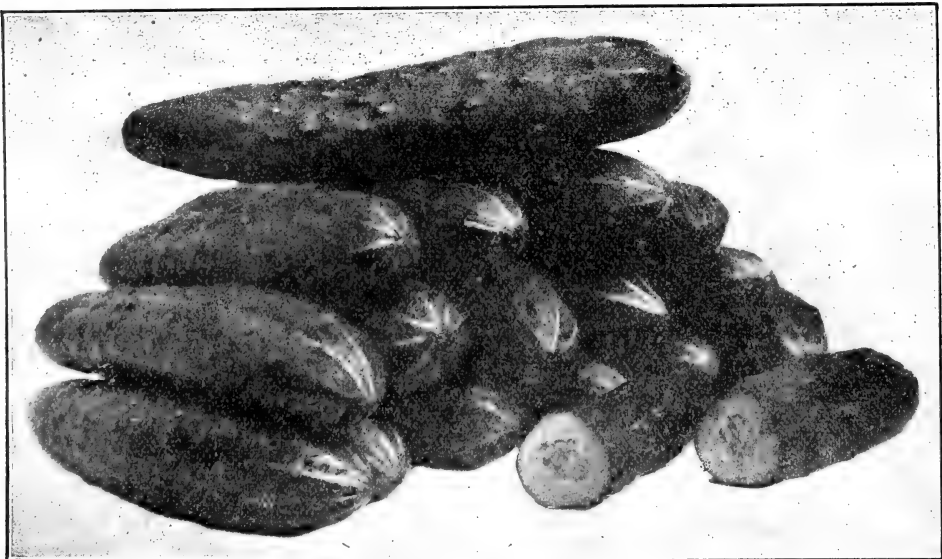
CUCUMBERS--Continued**Improved Long Green.****Chicago or Westerfield's Pickling.**

Improved Long Green—An old and popular variety and valuable for packing or slicing. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Chicago Pickling—A small pickling sort, very popular with Chicago market gardeners and large pickling houses. Immensely productive and of good shape and color. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 70c.

The Davis Perfect Cucumber—Unquestionably the best cucumber of recent introduction. As a forcing cucumber the Davis' perfect has no equal. Its excellent eating qualities, shape, color and productiveness place it without a rival. To obtain the best results for forcing under glass the plants should not be placed as close together as other forcing strains. It is a very vigorous grower and if planted too close together will not do as well. Mr. Davis places his plants about five feet apart. As a cucumber for growing outside it has proven a big money maker. Hundreds of bushels of the out-of-door product were shipped to Chicago and other markets the past season, which sold for hothouse cucumbers. A representative of a commission house on South Water street, while in conversation, said that when they had any of Davis' Perfect for sale they could not sell the common stock at all, and they always bought double or more than double the price of ordinary out-of-door cucumbers, as they resemble so closely the hothouse production that even experts could hardly tell the difference. It is a shy seeder, and on this account is preferable for table use. You will note in the photo the cucumber that is cut, showing the seeds which are very small and very few of them. From what we have seen and know of this cucumber we cannot too strongly recommend it for market gardeners and truckers as well as those who grow cucumbers for their own eating, whether grown under glass or in the home garden.

Price: Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

**Davis' Perfect Cucumber.**

Sweet Corn

Culture—It should be remembered that Sweet or Sugar Corn for roasting ears remains in fine condition only a few days, after which it becomes hard and poorly flavored. Beginning with Extra Early Adams, as soon as danger from frost is over, small plantings should be made every week to provide a constant supply of sweet, tender ears. The early sorts may be planted up to within eight weeks of frost. Early Minnesota, Mammoth White Cory, Crosby's Early are

early sorts. For main crop Stowell's Evergreen is the standard and best paying sort. Country Gentleman and Zigzag Evergreen are exceedingly sweet and fine flavored. Late Mammoth is the largest and latest of all. One quart of seed will plant 300 feet of row.

Extra Early Adams—While not properly a sweet corn, it is used as such because of its very early and hardy nature. Market gardeners depend on this sort for their first "roasting" ears. It can be planted long before it is safe to plant other varieties, and it is always the first in the market. Pkt. 5c, pt. 10c, qt. 15c, gal. 40c, bu. \$2.50.

Mammoth White Cory—A new extra early variety and a great improvement on the old Cory. The ears are handsome, even, broad grained and very large for such an early sort. They are borne two and three on a stalk, making it a very productive variety. One of the best extra earlies for home or market. Pkt. 5c, pt. 10c, qt. 20c, gal. 60c, bu. \$4.00.

Crosby's Early—An excellent sort, combining earliness and fine quality; medium sized ears of finest quality. Pkt. 5c, pt. 10c, qt. 15c, gal. 50c, bu. \$3.75.

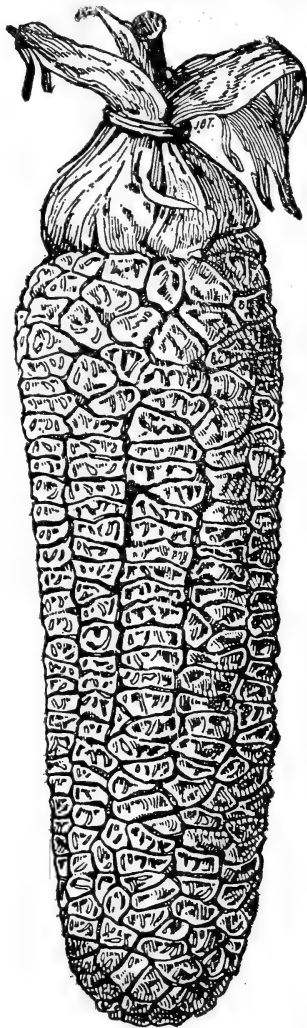
Early Minnesota—An old favorite. One of the best early varieties. Pkt. 5c, pt. 10c, qt. 15c, gal. 50c, bu. \$3.50.

Late Mammoth—The largest of all sweet corn. Immense ears of excellent quality, sweet and tender. Very late. Pkt. 5c, pt. 10c, qt. 15c, gal. 50c, bu. \$2.75.

Early Champion—The earliest large sweet corn. Produces ears a foot long in two months. Yields two and three ears to the stalk. Very sweet and juicy. An excellent sort for market or home use.

Pkt. 5c, pt. 10c, qt. 20c, gal. 60c, bu. \$4.00.

Stowell's Evergreen—The standard main crop variety. Large, well formed ears, deep grained; very sweet and sugary. It is hardy and productive, and altogether the best kind for general use. Pkt. 5c, pt. 10c, qt. 15c, gal. 50c, bu. \$3.75.

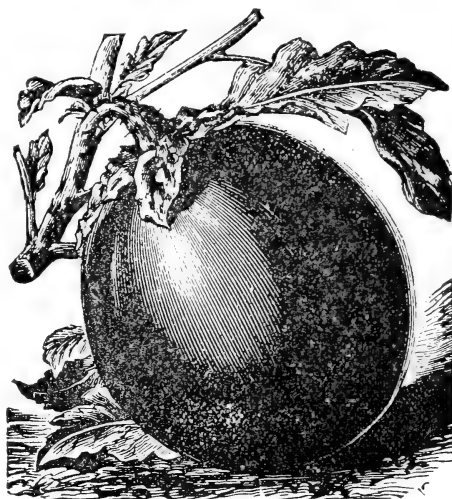


Early Minnesota.

Country Gentleman—Certainly a fine sort; ears average nine or ten inches in length, but what it lacks in size is more than equalled in superior quality and productivity. It sometimes yields as many as five or six ears to the stalk. Deep grained and exceedingly sweet and juicy. One of the best for the family garden. Pkt. 5c, pt. 15c, qt. 25c, gal. 80c, bu. \$4.50.

If Corn is wanted by Mail, add 10c per pt., 15c per qt. for postage. We pay the postage on packets. For list of Field Corn, see under Farm Seeds.

Egg Plant



New York Purple Improved.

Culture—The seed of the egg plant is very difficult to germinate; repeated sowings are often necessary. The seed require heat and should be sown early in the spring under glass in a hot-bed; after watering well keep the frame closed until plants appear, when air may be given on warm sunny days. When two or three leaves have developed, transplant in the hot-bed or plant in small flower pots. After all danger of frost is past and the ground has become thoroughly warm, transplant in the open. In setting out the plants a good plan to follow is to open a trench about two feet wide and two feet deep, nearly fill with well rotted manure, placing soil on top; set the plants in this soil about two feet apart; the roots will soon reach the manure and grow rapidly. A small black beetle often attacks the plants and should be picked off by hand.

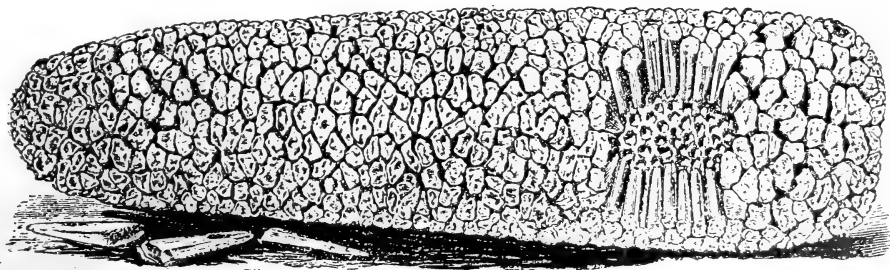
New York Purple Improved—The standard and by far the best variety for home or market. It is of uniformly large size, very productive, and of a rich purple color. The quality is all that could be desired. Pkt. 5c, oz. 25c, ¼ lb. 85c, lb. \$3.00.

Gourds

Nest Egg—The fruits when ripe exactly resemble hen's eggs in shape and color, and are much used as nest eggs. It is also an attractive ornamental climber. Pkt. 5c, oz. 10c.

Dipper—Useful for many purposes. The capacity varies from a pint to a quart, with handles six to twelve inches long. Pkt. 5c, oz. 10c.

Hercules' Club—A very long sort; very thick and heavy at one end, tapering gradually to the stem. Pkt. 5c, oz. 10c.



Country Gentleman.

Endive

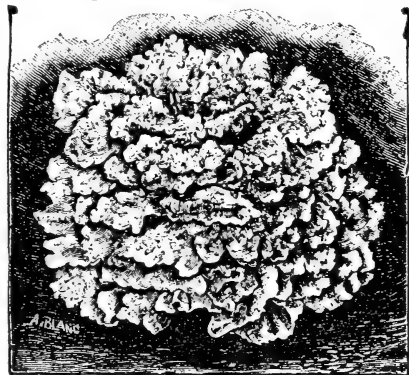
Culture—Sow the seed in the open ground when the earth is free from frost; for a succession, sow any time up till about the first of August. Sow shallow in rows one and one-half feet apart, and when the plants are large enough, thin out to ten inches apart. When the outside leaves have reached a length of about six inches they are ready for blanching; select a dry day for this work; bring the outside leaves together over the top of the plant and tie them up closely to prevent rain from coming through, which would cause the heads to rot. In about two weeks they will be nicely blanched and ready for use.

Green Curled—A very large variety; leaves deep green, beautifully curled and of fine flavor. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 35c, lb. \$1.25.

White Curled—The most beautiful sort; leaves light green and blanches easily to a clear waxy white, finely cut and curled. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 40c, lb. \$1.40.

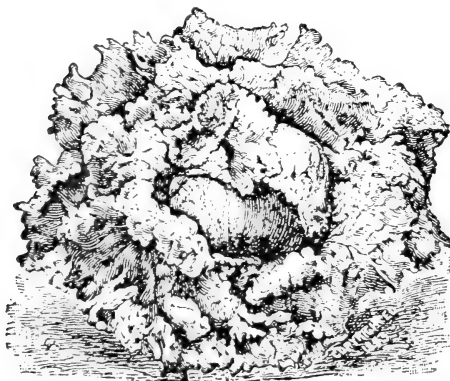
Lettuce

Culture—For early crops, seed may be sown the previous autumn and plants protected through the winter in cold-frames. Or, may be sown in hot-beds in February and transplanted to the open ground as soon as ground can be worked. For ordinary private use, the simplest way is to sow in the open ground early in spring in rows one foot apart; as the plants begin to crowd, gradually thin them out and use as required, so plants will stand about ten inches apart in the rows; should be hoed frequently to reach full development quickly. Beginning early in spring lettuce should be sown every two or three weeks until the middle of August; this will provide a supply of fresh, tender lettuce during the entire season.



Grand Rapids Forcing.

for forcing in the West than any other. Tons of it are grown by the large gardeners every season. As an outdoor lettuce for cutting when a few inches high, we know of no better sort than the Grand Rapids. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 30c, lb. 80c.



Prize Head.

ing to a beautiful white. Always crisp and tender, even in the hottest weather of summer. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Big Boston—Excellent for forcing or early outdoor culture; very hardy and vigorous; large heads, of a beautiful shade of green. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 85c.

Black Seeded Tennisball—Very hardy; valuable for forcing or early planting out of doors. Forms a solid head; the bright green outer leaves are very thick, crisp, tender and fine flavored. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Simpson's Black Seeded

—Forms large, loose, beautiful heads, of light yellowish green color; very tender and of best quality. A fine variety for forcing and stands the heat of summer well. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Simpson's Early Curled

—Fine, loose curled heads, light green in color; very sweet and tender. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 30c, lb. 75c.

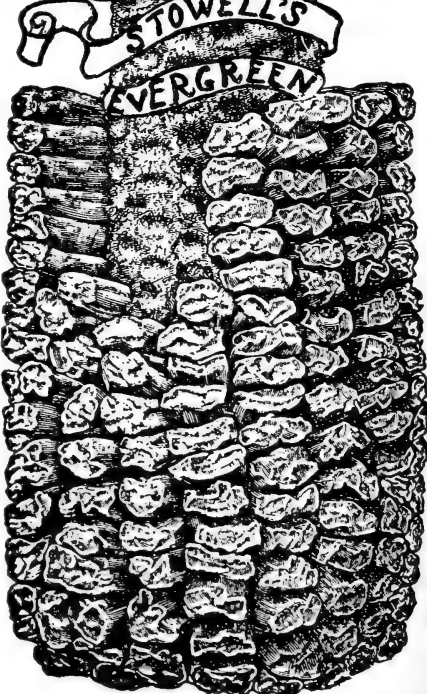
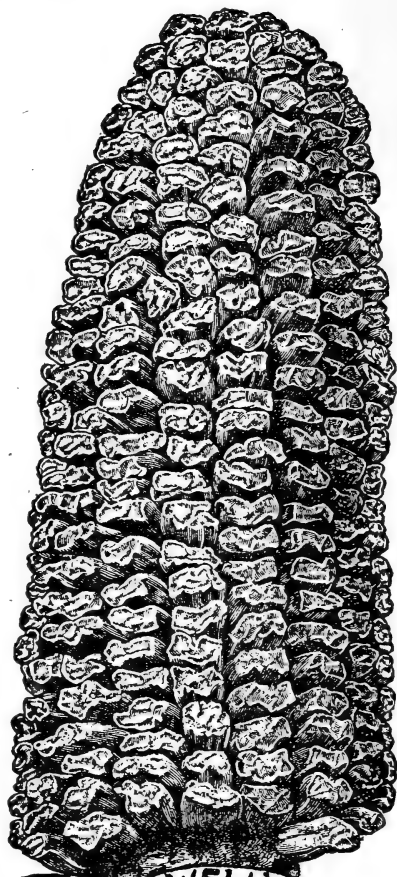
Grand Rapids Forcing

A favorite sort for growing in hot-beds or greenhouses, and a fine sort also for outdoor sowing. It grows very rapidly, forming large, loose curled bunches. The color is a yellowish green. The leaves are crisp, tender and fine flavored. This sort is probably more generally used

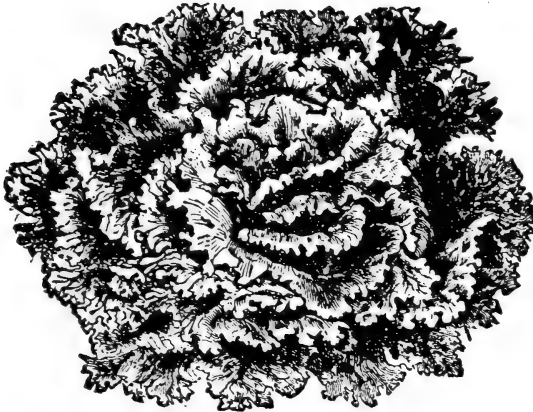
Prize Head—We highly recommend this sort for the family garden. It is early, of fine quality, and remains fit for use a long time before running to seed. It does not head up solid, but forms large loose bunches. The leaves are nicely curled and are very tender and sweet; bright green in color, edged with brownish red. It may be sown early in the spring, and does well also for summer use. If only one sort of lettuce is used, we would advise that it be Prize Head. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Hanson—One of the best of all varieties; forms a large, flat head, the inner leaves blanching in the hottest weather of summer.

Our Stocks are Northern Grown, true to name and thoroughly tested.



LETTUCE--Continued



Back Seeded Sampson Lettuce.



Hanson.

Denver Market—Large, solid heads; the leaves are crimped and blisere^d like Savoy cabbage. An excellent sort Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Philadelphia Butter—Round thick leaves of very dark green color; rich flavor. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Mustard

Culture—Mustard should be sown on good rich soil so as to cause a quick, tender growth. As soon as the ground can be worked, prepare the soil finely and sown in rows about twelve inches apart. For succession, sow at any time during the spring. It should be cut when about one inch high if wanted for salad, but if wanted for greens it may be allowed to make a larger growth.

White or English—For salads and flavoring. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 15c, lb. 35c.

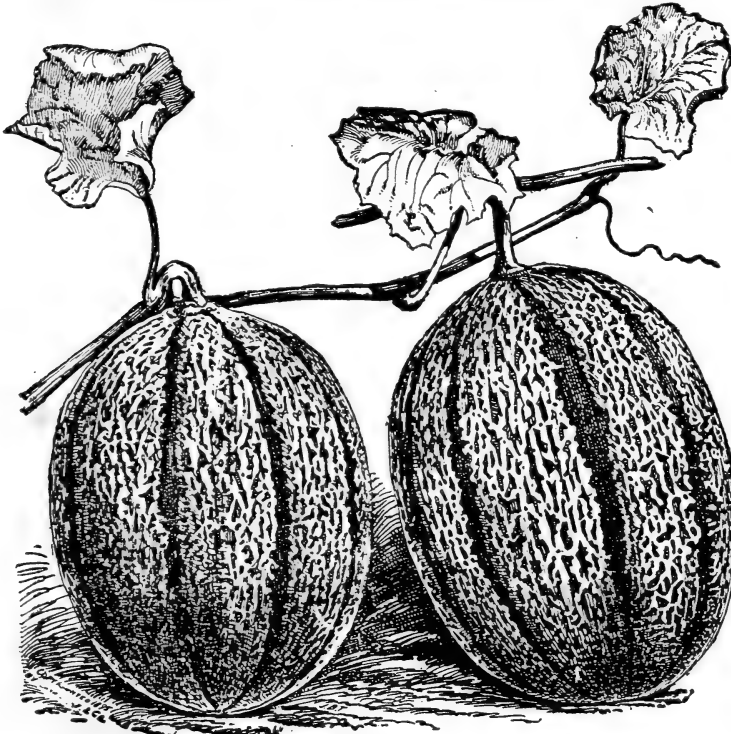
Ostrich Plume—An improved plant of the Southern Giant Curled, but immensely superior to this sort both in appearance and delicate flavor. The leaves are finely cut and densely curled, resembling wavy ostrich plumes. Of very quick growth and mild flavor. The finest mustard in existence. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 75c.

Southern Giant Curled—The true curled leaf sort. Very popular in the South for sowing in the fall or early spring salad or greens. Equally good for spring sower. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 60c.

Musk Melons

Culture—Musk Melons do best on newly broken sod or prairie land, or on soil prepared by plowing under a crop of rye or wheat in the spring. The seed should not be planted until the soil has become thoroughly warmed, about corn planting time. Plant five or six seeds to the hill, in hills four to six feet apart.

Rich soil or well rotted manure should be used in the hills; when the plants are of sufficient size, thin out to three vines to the hill. After the vines have grown about a foot long, pinch off the ends; this will cause them to become stronger and throw out branches.



Rocky Ford.

Rocky Ford—It is surprising in how short a time this delicious melon has sprung into favor. During the melon season it is shipped in trainloads from Rocky Ford, Colorado, where they are grown, to the large markets of New York, Boston and Philadelphia. It is another proof that merit will win. A melon must have merit to compete with home-grown melons in a market two thousand miles away. It has been demonstrated that these fine melons can be grown successfully in this section; in fact, the Gems, of which the Rocky Ford is a selection, have been grown here for years, and there is no reason why gardeners should not be able to supply at least their home markets with melons equal to those grown in Colorado. They are of a handsome, oval shape, as shown in the illustration; they average about five inches in length, of convenient size for packing in boxes or crates. The flesh is thick, of a light green color, and deliciously sweet and fine flavored. It is, without doubt, the most popular melon grown. In addition, it is very early and productive. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 70c.

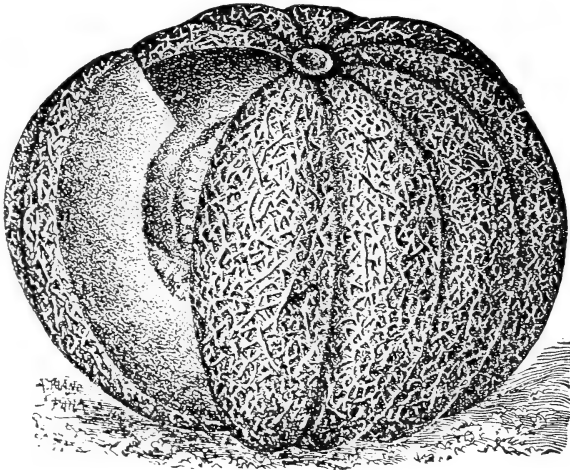
Jenny Lind—A small but very prolific sort; melons flattened at the ends, deeply ribbed and closely netted; flesh green and of good quality. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 70c.

Large Yellow Cantaloupe—A large variety, deeply ribbed; flesh thick and of a light salmon color. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 25c, lb. 75c.

MUSK MELONS--Continued

Osage—A fine yellow fleshed variety, of good size. Flesh very thick and of a beautiful salmon color; very sweet and melting. As a melon for the home garden it cannot be equaled. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 25c, lb. 80c.

Netted Gem—One of the earliest and most profitable small basket melons. Very uniform in desirable shape and size. Flesh light green and of very fine flavor. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 25c, lb. 70c.



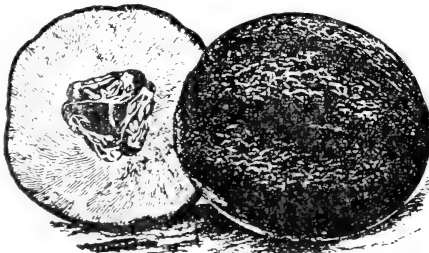
Extra Early Hackensack.

Early Green Nutmeg—A favorite for home or market. Medium size and first-class quality. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 70c.

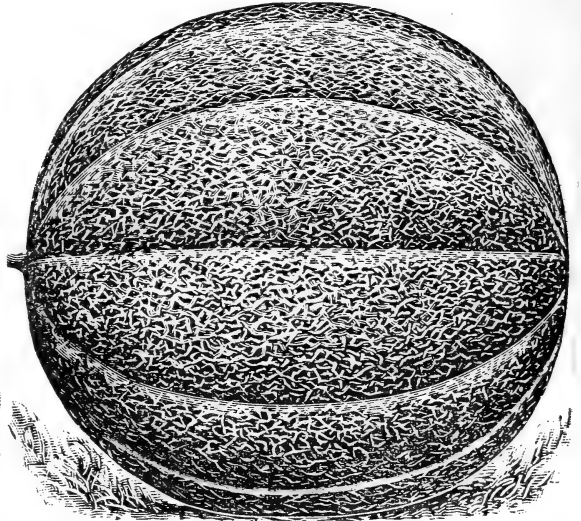
Extra Early Hackensack—A selection from the old Hackensack, but it is about ten days earlier. The melons are of good size and flavor, and valuable for early market. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 75c.

Paul Rose—A new variety. A successful cross between the Osage and Netted Gem. It combines the sweetness of the former with the fine netting of the Gem, and is even a better shipper than that variety. The melons grow uniform in shape and size. The flesh is remarkably thick, making the melon very solid and heavy, and of a beautiful salmon or orange color; deliciously sweet and melting. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 35c, lb. 80c.

Bay View—A long, green fleshed melon of largest size, often reaching a weight of twenty pounds. Easily grown. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 25c, lb. 75c.

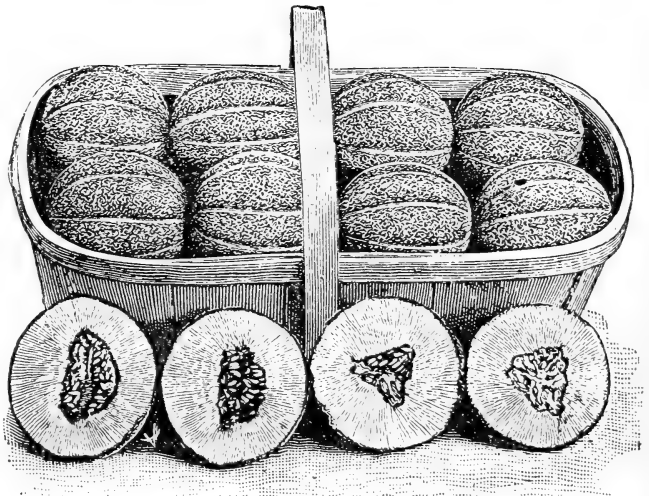


Osage.



Tip Top.

**Our Seeds are all Northern Grown
and Thoroughly Tested.**



Paul Rose.

Tip Top—A yellow fleshed melon of highest quality. This new musk melon should be planted by every gardener. It always pleases. The testimony of all who use Tip Top is that every melon produced, whether big or little, early or late, is a good one. It is always sweet, juicy and fine flavored; firm fleshed, and eatable to the outside coating. An excellent market variety, and sells on sight. The fruit is of large size, nearly round, evenly ribbed and netted; also, perhaps, the most productive melon grown. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 40c, lb. \$1.10.

Mushroom Spawn

For the money invested, no more profitable crop. Once started, it is easy to continue. The supply never equals the demand, so that a market is easily secured.

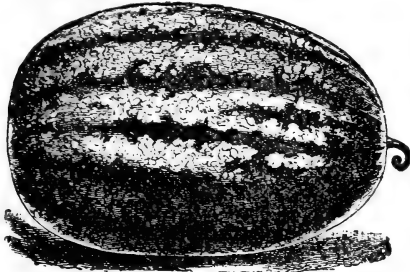
English—1 lb. bricks, 25c, 5 for \$1.00.

Superior socks are necessary to the prosperity of the market planter. The inferior article may be more attractive at the beginning, because it costs less, but the superior seed gives the more valuable product. You cannot afford to do without the best.

Water Melons

Culture—Water melons do best on newly broken sod or prairie land, or on soil prepared by plowing under a crop of wheat or rye in the spring. The seed should not be planted until the soil has become thoroughly warmed, about corn planting time. Plant five or six seeds in hills eight to ten feet apart each way. The soil in the hills should be made very rich by mixing in a few shovelfuls of well rotted manure. When the plants are well established, thin out to one or two strong plants. When insects molest the vines, dust with Slug Shot, or similar preparation.

Alabama Sweets—A valuable shipping melon of recent introduction. Its chief merit lies in its extreme earliness and delicious quality so rarely found in an early shipping melon. Messrs. A. L. Toombs & Son, who are large melon growers and shippers in the heart of the great melon growing section of Texas, write that out of about 1,100 cars shipped from there in 1901, over 800 cars were Alabama Sweets. They sell readily at good prices. Shape long, of good size; uniformly striped light and dark green; very sweet and luscious. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 60c.

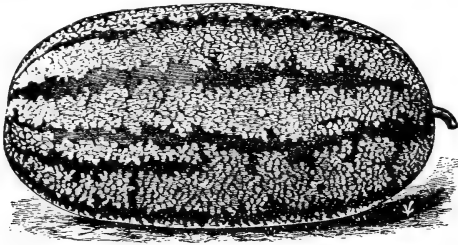


Cuban Queen.

Dixie—Oblong shape, light and dark green striped; flesh scarlet, very sweet and sugary; rind tough, making it an excellent shipper. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 50c.

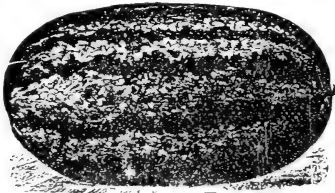
Florida Favorite—Oblong; striped; early, sweet and fine flavored. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 60c.

Cuban Queen—An old favorite. A good shipper. Has bright red flesh. Pks. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 50c.



McIvor's Sugar.

Mammoth Ironclad—A large, oblong, very heavy melon, reaching a length of two feet in good soil and under good cultivation. Rind thin, but very tough; skin dark green, striped and mottled, with broad bands of lighter green. flesh bright red, firm and solid; rich, sweet flavor. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 60c.



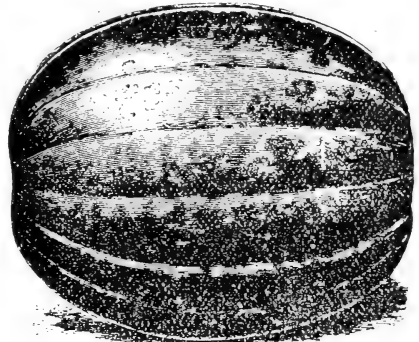
Mammoth Ironclad.

Sweetheart—They are easily distinguished by their beautiful mottled green skin, and when placed on sale buyers soon learn to pick them out as superior melons. The rind is very thin, but tough and leathery, making it an excellent sort for shipping or hauling long distances. The flesh is firm and solid, of a beautiful bright red color, very sweet and sugary, and of delicious melting flavor. They grow to a large size. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 60c.

Ice Cream—Medium size; oblong shape; thin rind and bright red flesh; sweet and luscious; excellent for home or market. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 56c.

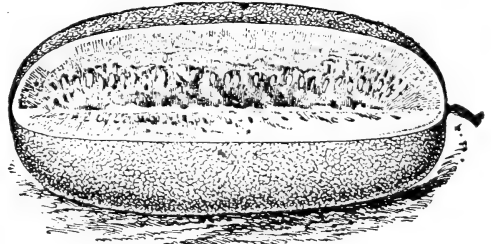
Phinney's Early—The earliest variety. Small, but very hardy. Bright red flesh. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 50c.

Gypsy or Georgia Rattlesnake—A very large melon, and a good shipper. The skin is striped light and dark green. The flesh is bright scarlet, deliciously sweet and sugary. This variety is very popular in the South for shipping. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 50c.



New Triumph.

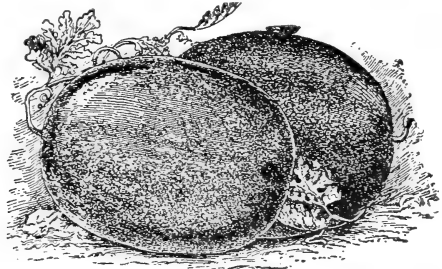
New Triumph (Mammoth sort from Florida)—An enormous melon, reaching in good soil and under good cultivation a weight of one hundred pounds and over. The average weight is about seventy pounds. It is a first-class shipper. The skin is a rich dark green, and the bright red flesh is surpassed by no other melon in fine, sweet flavor. It is a variety that will become very popular with melon growers as soon as it becomes better known. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 75c.



Gray Monarch.

Kolb's Gem—The old popular market and shipping variety. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 45c.

McIvor's Wonderful Sugar—Everyone who ever grew this melon is delighted with it. It has proven to be one of the best flavored, sweetest melons every introduced. The melons are of fine oblong shape, uniformly large, and of handsome appearance. The skin is striped alternately white and dark green. The flesh is very solid, free from stringiness, and of a light pink color, sweet and juicy. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 65c.



Sweetheart.

Mountain Sweet—An old standard. Flesh red and of good quality. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 45c.

WATERMELONS--Continued

Gray Monarch—Skin light, almost white, attractively mottled; shape long, and grows to a large size. An excellent sort for market, and of fine, sweet flavor. Also called Long Light Icing. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 60c.

Dark Icing—Large, dark green; almost round; flesh sweet and bright red. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 20c, lb. 50c.



Kleckley's Sweets.

Kleckley's Sweets—The finest melon for home use in cultivation. It is of medium size and oblong shape. The skin is a handsome dark green. The bright red flesh is exceedingly sweet and melting. The rind is so thin that there is practically no waste. Pkt. 5c, oz. 10c, $\frac{1}{4}$ lb. 25c, lb. 75c.

Herbs

Anise—Used for garnishing and flavoring; the seed has an agreeable aromatic taste. Pkt. 5c, oz. 10c.

Sweet Basil—The leaves are used for flavoring soups, stews, etc. Pkt. 5c, oz. 10c.

Caraway—Grown for the seeds, which are used for flavoring bread, cakes, etc. Pkt. 5c, oz. 10c.

Dill—Stems and seeds used for flavoring and pickling with cucumbers. Pkt. 5c, oz. 10c.

Sweet Fennel—The leaves, boiled, are used in sauces and soups. Pkt. 5c, oz. 10c.

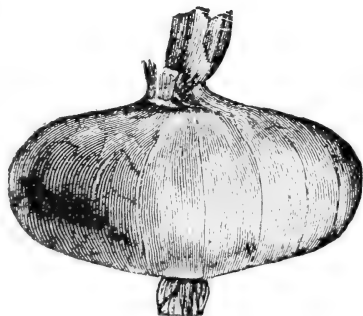
Lavender—Pkt. 5c, oz. 20c.

Sweet Majoram—The leaves and young shoots are used for flavoring, either green or dry. Pkt. 5c, oz. 10c.

Sage—Much used for flavoring and dressing. Pkt. 5c, oz. 10c.

Summer Savory—For flavoring soups, etc. Pkt. 5c, oz. 10c.

Thyme—Used for seasoning soups, sausages, etc. Pkt. 5c, oz. 10c.



Flat Yellow Danvers.

✓ **Large Red Wethersfield**—We have a very fine and select strain of this sort. Color is deep purplish red, flesh white, moderately grained and very firm. Yields an enormous amount per acre, and is one of the best winter keeping onions.

✓ **Extra Early Flat Red**—This variety matures from ten days to two weeks earlier than the Red Wethersfield. The color is a deep rich red, fine grain and close. The onion is solid and heavy, and is a fine sort where the seasons are cold and short.

✓ **Southport Red Globe**—This is a fine keeper. Large size and considered one of the best red onions. Flesh is fine grained, very mild and tender.

✓ **White Portugal (American Silver Skin)**—This is the best sort to sow for onion sets or for pickling. When sown thickly for either it makes a small, round, hard bulb. When grown for large onions they are very flat in shape and mild and pleasant in flavor.

Kohl Rabi

Culture—Kohl Rabi requires exactly the same treatment as cabbage. For early use sow the seed thinly in hot-bed and transplant to open ground when frost has left the soil. Or the seed may be sown in the open ground when the peach is in bloom, and repeat sowings a month apart for a succession. Sow thinly and shallow in rows two feet apart and thin out to six inches apart in the row. The bulbs should be used before they reach their full size and while the skin is still tender. They become tough and woody if allowed to reach their full development.

Early White Vienna—Very early; small tops and of a fine, delicate flavor. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 50c, lb. \$1.75.

Early Purple Vienna—Identical with the above except in color, which in this sort is a rich purple. Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c, lb. \$2.00.



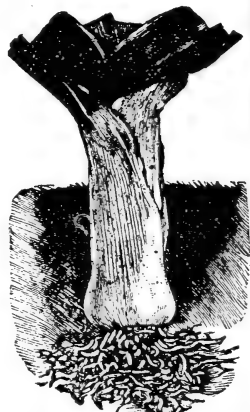
Early White Vienna.

Pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c, lb. \$2.00.

Leek

Culture—Sow the seed early in the spring, in rows where they are to remain and thin out to four inches part, or sow thinly in seed bed, and when the plants are about three inches high, transplant six inches apart in rows two feet apart. Keep free from weeds and well hoed during the summer, gradually drawing the soil up about the plants to blanch them. The flavor is improved by freezing.

Monstrous Carentan—A giant variety, often three inches in diameter. Very white and tender. Pkt. 5c, oz. 15c, $\frac{1}{4}$ lb. 40c, lb. \$1.20.



Monstrous Carentan.

Choice Onion Seed

✓ **Early Flat Yellow Danvers**—A good variety, but not as round or quite as early as the Yellow Globe Danvers. Very productive.

✓ **Yellow Strasburg, or Dutch**—One of the oldest varieties. Bulbs quite flat, of good size, skin yellow, flesh white, or mild flavor, and keeps well. This is the variety that formerly was used very extensively for growing yellow onion sets, and while still good for that purpose, it has of late years been nearly superseded by the Yellow Danvers.

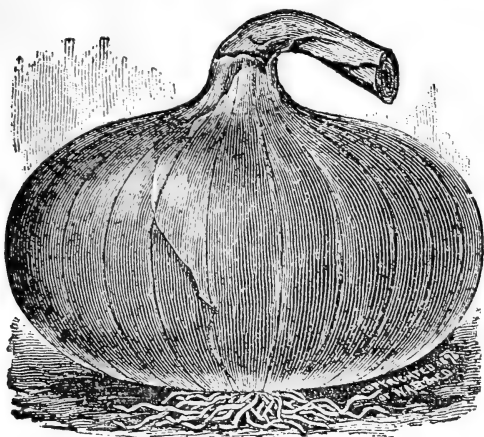
✓ **Australian Brown Onion**—Is of medium size, wonderfully hard and solid, and most attractive for market, both as to form and appearance. The color of the skin is a clear amber brown. So widely contrasted from any other onion is this color that it will be noticed on the market, and when once bought, purchasers will be likely to return and call again for "those beautiful brown onions."

✓ **Prizetaker**—Grows to an immense size, and for fall marketing is unexcelled. Handsome bulbs of a rich yellow color and fine globe form.

✓ **Yellow Globe Danvers**—This fine onion is of large size. An early and abundant cropper. Bulbs very thick, flat or slightly convex bottoms, full oval top, with small neck and rich brownish yellow skin.

✓ **Southport Yellow Globe**—A large, perfectly shaped globe onion, and an excellent onion for keeping throughout the winter. A heavy cropper, handsome in appearance and good dark yellow color.





Red Wethersfield.

mild and delicate, perfectly adapted for pickling and table use, and by the transplanting method.

Prices of Foreign Onions, pkt. 5c, oz. 20c, $\frac{1}{4}$ lb. 60c.

Onion Price List

	Pkt.	Oz.	$\frac{1}{4}$ lb.
Australian Brown	\$0.05	\$0.10	\$0.40
Early flat Yellow Danvers .....	.05	.20	.50
Prizetaker .....	.05	.20	.50
Yellow Globe Danvers .....	.05	.20	.50
Southport Yellow Globe .....	.05	.20	.50
Southport Red Globe .....	.05	.20	.50
Large Red Wethersfield .....	.05	.15	.50
Extra Early Flat Red .....	.05	.15	.50
Southport White Globe .....	.05	.20	.60
White Portugal .....	.05	.20	.60
Philadelphia Silverskin .....	.05	.20	.60

Good Onion Seeds cost more to grow than poor. Do not try and save a few cents on the seed when the result to the crop may mean many dollars.



Onion Sets

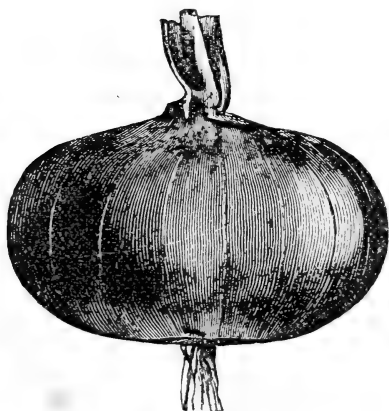
Culture—Onion sets will produce large marketable bulbs much quicker and with less trouble than they can be grown from seed. The sets may be planted in autumn or spring in rows one foot apart and six inches apart in the row. Plant so that the top of the set is on a level with the surface of the soil. The sets will produce large green bunching onions, or large onions for market, months ahead of those grown from seed, and coming ahead of the general crop bring much higher prices.

One quart of sets to one hundred feet of row.

We grow annually large quantities of onion sets, and are prepared to furnish choice small dry sets.

	By mail Quart	By express or freight Quart	Gal.	Bu.
Red Bottom Onion Sets	25c	15c	50c	\$3.00
White Bottom Onion Sets	30c	20c	70c	3.50
Yellow Bottom Onion Sets	25c	15c	50c	3.00
Top Onion Sets	30c	20c	70c	4.00

Prices subject to market fluctuations. Write for prices on large quantities.



White Portugal.

Remember all of our seed is thoroughly tested under glass light in a green house. You take no chance on results.

The best is always the cheapest. A trial order will make you a regular customer.



Okra.

with a very smooth, clean skin. The variety is easily distinguished by the leaves arising from a depression on the top or crown of the root. Pkt. 5c, oz. 10c, 2 oz. 15c, ¼ lb. 20c.

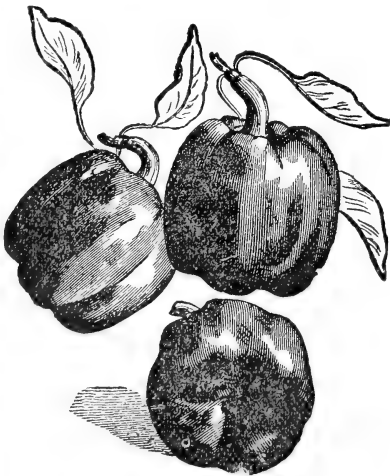
Guernsey—The best sort for heavy, black soils. In the vicinity of Chicago, where the soil is exceedingly rich, this is the variety needed, as it makes a fine shaped root which does not grow too long. Pkt. 5c, oz. 10c, 2 oz. 15c, ¼ lb. 20c.



Champion Moss Curled.

gardeners for the greenhouse. Pkt. 5c, oz. 10c.

Champion Moss Curled—A very fine variety. One of the handsomest for garden fine shaped roots, which do not grow too long. Pkt. 5c, oz. 10c, ¼ lb. 20c.



Bell, or Bull Nose.

Red Cherry—Plant tall, bearing a profusion of bright red, round fruit, which is very pungent when ripe. The plant is very handsome and an ornament to the garden. Pkt. 5c, ½ oz. 15c, oz. 25c.

Red Chili—Used in the manufacture of pepper sauce. Pods sharply conical, and exceedingly pungent when ripe. Requires a long, warm season. The plants should be started quite early in hot-beds. Pkt. 5c, ½ oz. 15c, oz. 25c.

Yellow Chili—Similar in form to the Red Chili; more pungent, and of a very beautiful yellow color. Pkt. 5c, ½ oz. 15c, oz. 25c.

Long Red Cayenne—A long, slim, pointed pod, and when ripe of a bright red color. Extremely strong and pungent. Pkt. 5c, ½ oz. 15c, oz. 25c.

Arsenate of Lead, a sure exterminator of the Canker Worm and all Leaf Eating Insects.

Okra or Gumbo

This vegetable is too little grown, as its green pods impart a fine flavor and consistency to soups and stews. The pods can also be dried for winter. It is universally used throughout the South, and is as easily raised in the North. So delicious is the flavor that when once used it will be grown every year.

Lady Finger—The plants are uniform in growth, and with their large hibiscus-like flowers make a pretty sight. The plants produce long, slender pods. Pkt. 5c, oz. 10c.

Dwarf Prolific, or Density—A fine new variety, much dwarfer than the ordinary dwarf okra, and much more productive. Short, thick pods. Pkt. 5c, oz. 10c.

White Velvet Okra—The pods are perfectly round, smooth and of an attractive white velvet appearance; of superior flavor and tenderness. Pkt. 5c, oz. 15c.

Tall Green—A favorite at the South. Called also Perkins' Mammoth Long Pod. Pkt. 5c, oz. 10c.

Parsnip

Long White Dutch, or Sugar—Roots very long, white, smooth, tender, sugary and of most excellent flavor. Very hardy, and will keep through winter without protection. Pkt. 5c, oz. 10c, 2 oz. 15c, ¼ lb. 20c.

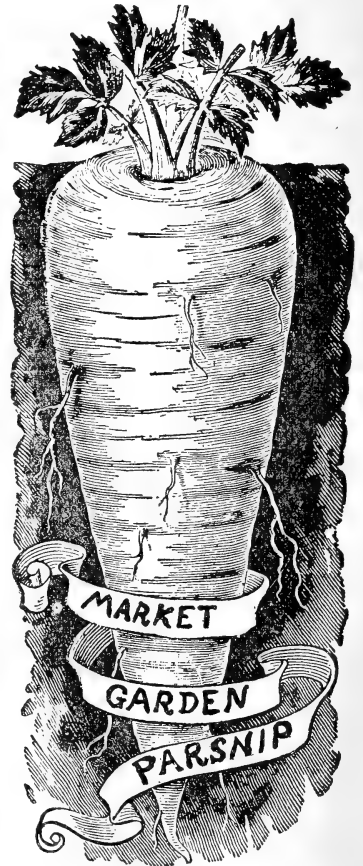
Hollow Crown—Roots comparatively short, the variety is easily distinguished by the leaves

Parsley

Fern Leaved—This sort has a peculiar, fern shaped leaf. It is not so desirable as the more curled sorts. Pkt. 5c, oz. 10c, ¼ lb. 30c.

Hamburg Rooted—Standard rooted sort. The leaves are used for soup greens, and the roots, when sliced, are much esteemed. Pkt. 5c, oz. 10c, ¼ lb. 30c.

Double Curled—The standard sort for outdoor culture. also highly prized by market



Pepper

Sweet Mountain—Plants very vigorous and productive, growing upright, with moderately large leaves. Fruit very large, long, often 3 inches or more in length, by two in diameter; very smooth and handsome, being, when unripe, of a bright, deep green color, entirely free from any purple tinge, and when mature, of a rich red. Flesh very thick, sweet and mild flavored. Well suited to use as a stuffed pickle. Pkt. 5c, ½ oz. 15c, oz. 25c.

Large Bell, or Bull Nose—A very large sort of inverted bell shape, suitable for filling or for a mixed pickle. Flesh thick, hard and less pungent than most other sorts. Pkt. 5c, ½ oz. 15c, oz. 25c.

Procopp's Giant—Very large, usually 8 to 9 inches long, and 3 inches thick. Brilliant scarlet color; flesh thick, of pleasant flavor. Pkt. 5c, ½ oz. 15c, oz. 25c.

Ruby King—An improved American sort, reaching the largest size, yet retaining the symmetrical shape of the smaller sorts. Pkt. 5c, ½ oz. 15c, oz. 25c.

Large Squash—Fruit large, flat, tomato shaped, more or less ribbed, skin smooth and glossy, flesh mild, thick meat and pleasant to the taste, although possessing more pungency than the other large sorts. Pkt. 5c, ½ oz. 15c, oz. 25c.

Golden Upright—The fruits are large and of a beautiful rich golden yellow, tinged with a bluish red. The peppers are mild and as pleasant to the taste as Ruby King. Pkt. 5c, ½ oz. 15c, oz. 25c.

Peas

Sorts marked "W" are Wrinkled Peas; "S" denotes Smooth Round Seeded Sorts.

Culture—The hardy, round-seeded sorts, such as First and Best and Alaska, may be planted the previous autumn or very early in the spring as soon as it is possible to prepare the ground. Plant in rows three feet apart, scattering the seed about two inches apart in the row and cover it two inches deep. The wrinkled sorts are more tender and should not be planted until the ground becomes warmer. Nott's Excelsior, American Wonder and Premium Gem are dwarf-growing sorts, requiring no support; they are early, can be planted closely and are recommended for the family garden. Telephone, Strategem and Bliss' Everbearing are taller and later sorts, producing very large, broad pods and fine peas. Large White Marrowfat and Champion of England are larger sorts and grow about six feet high. Of the edible podded sorts the entire pod is cooked like string beans. The Tall Melting Sugar is the best of this class.

Extra Early Sorts

First and Best (S)—A very popular extra early pea; height 2½ ft., seed round, smooth, cream colored. Pkt. 10c, pt. 15c, qt. 20c, gal. 60c, bu. \$4.50.

Alaska (S)—As early as the earliest; the finest extra early pea known; pods of a rich dark green color. It grows 2½ feet high and matures all the crop at once, making it a valuable variety for the market gardener. Pkt. 5c, pt. 15c, qt. 25c, gal. 70c, bu. \$5.00.

Extra Early Wrinkled Pea "Gradus"

Gradus (W)—The most attractive novelty of recent years. As early as the extra earlys and with immense pods double the size of First and Best. The pods are well shaped and filled with large, luscious peas of the very finest quality. Height three feet. Every gardener should try this sort. Pkt. 10c, pt. 30c, qt. 50c, gal. \$1.90, bu. \$7.50.

Early Dwarf Sorts

American Wonder (W)—A desirable dwarf variety, growing only nine inches high; very early. Peas are wrinkled, very sweet and high flavored. Pkt. 10c, pt. 20c, qt. 30c, gal. \$1.00, bu. \$6.50.

Nott's Excelsior (W)—The best dwarf variety for the home garden. Grows a foot high, and is wonderfully productive. The peas are tender and of delicate flavor. An excellent sort, growing more in popular favor every year. Pkt. 10c, pt. 20c, qt. 30c, gal. \$1.00, bu. \$6.75.

Carter's Premium Gem (W)—A deservedly popular dwarf growing sort, growing about fourteen inches high. It is hardy and can be planted earlier than most wrinkled peas; very prolific. The pods are large and contain six to nine peas of first-class quality. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$5.50.

Tom Thumb (S)—An old sort; early and prolific; height ten inches. Pkt. 10c, pt. 15c, qt. 25c, gal. 75c, bu. \$4.75.

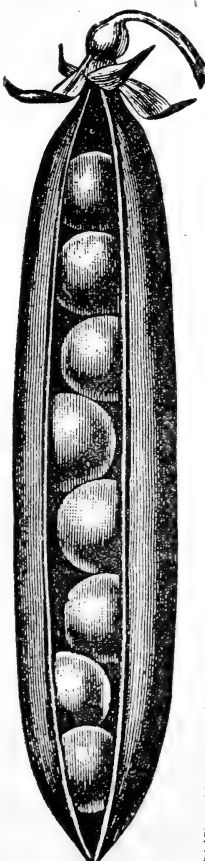
Medium and Late Sorts

Telephone (W)—Height 3½ feet; vines and leaves are large and coarse. The extra large, light green pods are produced in the greatest profusion, and are filled with immense peas, which are sweet, tender and of delicious flavor. The fine showy appearance of the big pods makes it an invaluable variety to the market gardener. Pkt. 10c, pt. 15c, qt. 25c, gal. 80c, bu. \$5.00.

Bliss' Everbearing (W)—A second early sort continuing a long time in bearing. Vines vigorous and branching, and grow about two feet high. The peas are large, sweet and well flavored. Pkt. 10c, pt. 15c, qt. 25c, gal. 60c, bu. \$4.00.

Improved Strategem (W)—Of vigorous habit and a heavy cropper; height two feet; large seed, green, wrinkled. Popular with gardeners everywhere. The large, attractive pods, combined with the excellent quality of the peas, make it a very desirable and paying variety. Pkt. 10c, pt. 15c, qt. 25c, gal. 80c, bu. \$5.00.

Large White Marrowfat (S)—A good summer pea; grows five feet high; is productive and of fair quality. Pkt. 5c, pt. 10c, qt. 15c, gal. 50c, bu. \$3.00.



Telephone.



Alaska Peas.

Carter's Daisy or Dwarf Telephone (W)—Grows only eighteen inches high, producing large, long, handsome pods, well filled with large, tender peas of fine flavor. A most excellent variety. Pkt. 10c, pt. 20c, qt. 30c, gal. \$1, bu. \$6.50.

WcLean's Advancer (W)—A great favorite with market gardeners. The large, handsome, well-filled pods are borne at the top of the stalk and are easily gathered; height two feet. Pkt. 10c, pt. 15c, qt. 20c, gal. 60c, bu. \$4.00.

Bliss' Abundance (W)—Vigorous in growth, producing pods in the greatest abundance—hence its name. Height twenty inches; peas of good quality. Pkt. 10c, pt. 15c, qt. 25c, gal. 60c, bu. \$4.25.



Premium Gem.

Shropshire Hero (W)—A comparatively new sort; bears profusely; pods large and perfectly shaped and filled with peas of very best quality. Pkt. 10c, pt. 15c, qt. 25c, gal. 60c, bu. \$4.25.

Champion of England (W)—An old and favorite sort with all those who are fond of a large, tender, luscious pea. It is hardy and rampant in growth, reaching a height of four or five feet, and is fairly productive. Pkt. 10c, pt. 15c, qt. 20c, gal. 50c, bu. \$4.00.

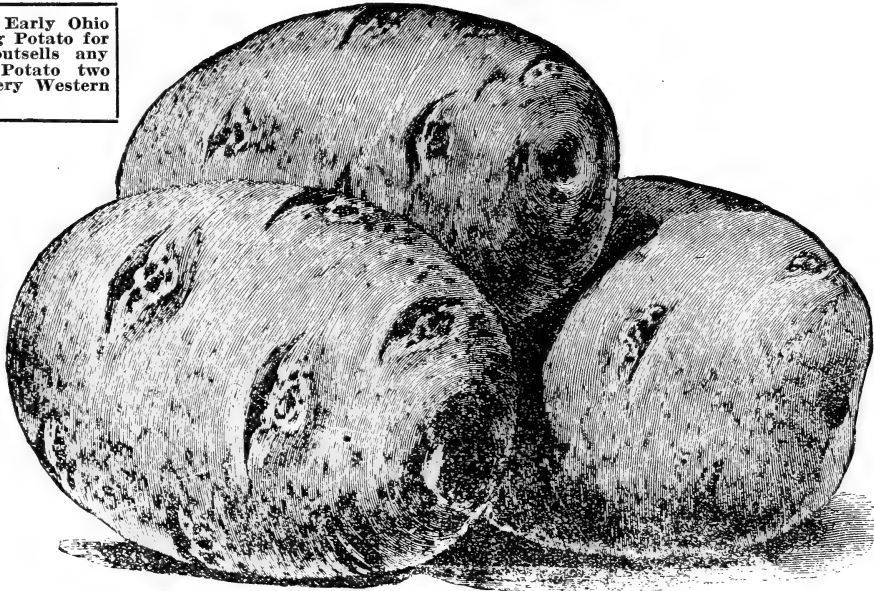
Melting Sugar (S) (Edible Pod)—In this variety, which is the best of its class, the entire pod is cooked in the same way as string beans. The pods are of large size, flat, very tender and brittle, and fine flavored when cooked; the vines attain a height of four feet and are very productive. Pkt. 10c, pt. 15c, qt. 25c.

If Peas are wanted by mail, add 10c per pint and 15c per quart for postage. We pay the postage on packets.

Seed Potatoes

This Extra Early Ohio is the Leading Potato for Early. It outsells any other Early Potato two to one on every Western market.

Prices
on
Application
We
Are
in
Line



Do Not
Send Away
For
High Priced
Novelties
Buy the
Old
Reliables
We Have
Them

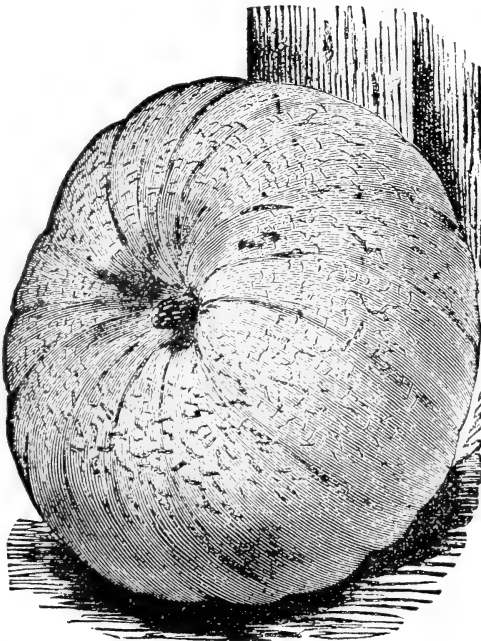
Early Six Weeks—Claimed by some to be earlier than the old Ohio, and although we see very little difference, they are preferred by some of our gardeners.

Extra Early Ohio—Absolutely the first early potato on the market. No other potato is so profitable for early use and is the favorite of all Chicago market gardeners. A short, thick, round, oblong potato. In color it is a dull red. The flesh is solid, of extra good quality and flavor; very mealy even when only partially grown. Our stock is very pure and select.

Early Rose—This well-known variety is still very popular. Pure seed is hard to get. Ours is as pure as any to be had.

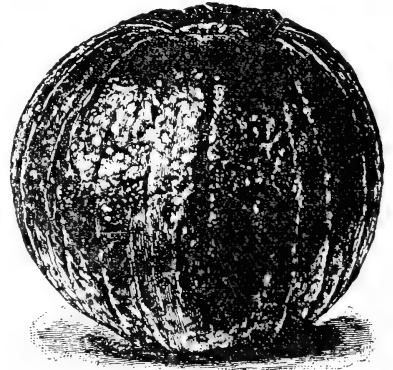
Pumpkin

Culture—The pumpkin does best on newly broken sod or prairie land, or on land formed by plowing under a crop of rye or wheat in the spring; but will do well on almost any soil. The seed is usually planted among corn in hills eight by eight feet. Plant any time during May. When the frost has killed the vines, cut off the stems a few inches from the fruit and store in a dry place, using care not to bruise them in handling.



Mammoth Potiron.

Mammoth Pot-iron—The flesh and skin are of a bright golden yellow color. The flesh is fine grained and of excellent quality. Notwithstanding its enormous size it is one of the very best pie pumpkins ever grown, and a splendid keeper. This enormous variety has been grown to weigh 200 pounds. Pkt. 5c, oz. 10c, lb. 75c.



Small Sugar.

Large Cheese—A large, flat sort, productive and of good quality. Pkt. 5c, oz. 10c, ¼ lb. 20c, lb. 50c.

Connecticut Field—The common yellow field variety. Pkt. 5c, oz. 10c, ¼ lb. 20c, lb. 50c. By express or freight, lb. 35c, 5 lbs. \$1.50.

Tennessee Sweet Potato—Medium size, pear shaped, striped white and green; thick flesh, of good flavor. Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 75c.

Cushaw or Crookneck—Light cream color; productive. Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 75c.

Small Sugar—Similar to Winter Luxury. Very sweet and keeps well; quality excellent. Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 75c.

King of the Mammoth—The giant among pumpkins; often reaches a weight of over a hundred pounds. Skin salmon colored; flesh bright yellow, fine grained and of good quality. Pkt. 10c, oz. 10c, ¼ lb. 30c, lb. \$1.00.

Quaker Pie—Oval in shape, tapering to the stem end. Flesh and skin of a creamy yellow color. Fine for pies, being fine grained and rich flavored. Pkt. 5c, oz. 10c, ¼ lb. 30c, lb. \$1.00.

Winter Luxury—A small, sweet, golden yellow variety. A fine winter keeper and unequaled for cooking. Pkt. 5c, oz. 10c, ¼ lb. 20c, lb. 70c.

Radish

✓ **Early Scarlet Turnip, White Tipped**—One of the handsomest of the turnip radishes and a great favorite in many large markets, for early planting outdoors. It is but little later than the White Tipped Forcing, and will give entire satisfaction where extreme earliness is not the primary object. Roots slightly flattened on the under side; color very deep scarlet, with a white tip; flesh white and of the best quality. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Non Plus Ultra**—This is one of the finest forcing radishes introduced, and has already taken a leading place with our market gardeners. It will mature in 18 to 20 days, and, owing to the extremely small tops, can be sown very thickly. The roots are round, with a deep scarlet colored skin, the flesh white, very crisp and tender. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Olive Shaped Bright Red Leafless Forcing**—The extra early forcing radishes lately introduced are remarkable for the small size of their leaves. They develop their roots in so short a time that the latter are practically in advance of the leaves. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Early Scarlet Turnip**—The standard early turnip radish. Fine flavored and mild. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Early Carmine**—An extra early variety of turnip-shaped radish. It is very mild and crisp. The flesh is white, the color is carmine, and the radish looks bright even when wilted. This is, therefore, very salable on the market, even on the hottest days, when other radishes look dull and dry. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **New Deep Scarlet Turnip**—This is a very bright colored scarlet turnip radish, very early and short leaf, well adapted to forcing under glass. Matures in 14 to 21 days, and its appearance will sell it in any market. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Large White Summer Turnip**—A very large turnip-shaped variety; white, very crisp and mild. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Large Yellow Summer Turnip**—Like the above, except in color. Pkt. 5c, oz. 10c; ¼ lb. 20c.

✓ **Gray Summer Turnip**—Popular for midsummer planting. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Long Brightest Scarlet, White Tipped**—This is the brightest and handsomest colored scarlet radish known, and a decided improvement in earliness and color over other varieties of this class. It makes roots fit for use in about twenty-five days from time of planting, and they continue in good condition until they are full grown, when they are as large as the Wood's Early Frame. It has a small top and does not run to neck. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **French Breakfast**—Olive-shaped, scarlet, with white tip; crisp and tender. Very early. A general favorite. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Long White Vienna, or Lady Finger**—A very excellent white variety, with long, very smooth white roots, which are crisp and tender. It comes into use shortly after Wood's Frame, and is one of the most desirable of the white summer sorts. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Iceberg**—The earliest long sort. Although a long radish of good size, it becomes fit for use almost as early as the small round sorts. The roots are straight, smooth and pure white in color. The flesh is almost transparent, brittle as glass, very tender and fine flavored. Pkt. 5c, oz. 10c, ¼ lb. 25c, lb. 80c.

✓ **Chartier**—Decidedly distinct in appearance from any radish in cultivation. Its form is well shown by our engraving, the color at the top being crimson, running into pink about the middle, and from thence downward it is a pure waxy white. It will attain a very large size before it becomes unfit for the table. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Early Long Scarlet, Short Top Improved**—This bright scarlet, small topped sort is about six inches long, grows half out of the ground, is uniformly straight, smooth, brittle and crisp, and is a standard and excellent sort for private gardens or market use. Pkt. 5c, oz. 10c, 2 oz. 15c, ¼ lb. 20c, lb. 50c.

✓ **Wood's Early Frame**—This is not only a good variety for forcing, being shorter and thicker than the old Long Scarlet Short Top, but is one of the

very best sorts for first crop out of doors. It continues brittle and tender until July. The roots are very uniform in shape, smooth and very bright red in color. The flesh is white and crisp. Pkt. 5c, oz. 10c, ¼ lb. 20c.

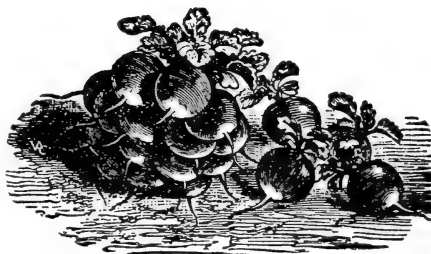
✓ **Early White, Olive Shaped**—Like Scarlet Olive Shaped, except that the roots are clear white and a little longer. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **White Strasburg, or Summer Hospital**—Large, showy, half-long, white sort. Grows with great rapidity, sometimes producing a crop in six weeks. It will keep in eatable condition two weeks before going into seed. Best summer radish grown. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Giant Stuttgart**—A summer variety; grows to immense size; white flesh, very crisp and tender; of good flavor and a good keeper. Pkt. 5c, oz. 10c, ¼ lb. 20c.

✓ **Early Scarlet Globe**—A desirable sort for hot-bed forcing and outdoors; very early; flavor mild; crisp, juicy and tender; top small; will stand heat without becoming pithy. One of the best selling and most attractive radishes, on account of its bright scarlet color and handsome shape. Is ready in twenty-eight days. Pkt. 5c, oz. 10c, ¼ lb. 20c.

Start the children right. Set apart space in the yard for a garden. No matter how small a piece of ground, the child will derive both pleasure and profit from it. The patience and care which must be exercised is an education in itself, while the nature study and good, wholesome exercise are bound to be a benefit and create ambition.



Early Scarlet Turnip, White Tipped.



Chartier.



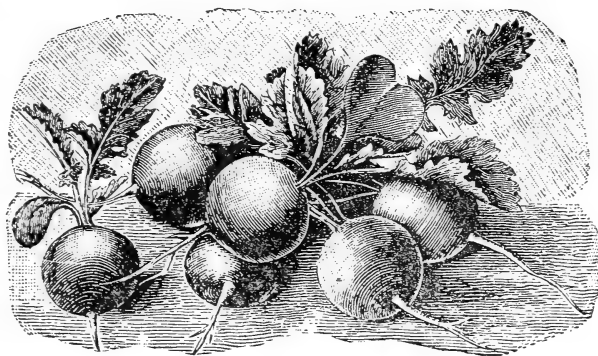
Iceberg.



Long Bright Scarlet.

RADISH--Continued

WINTER RADISHES.



Scarlet Globe.

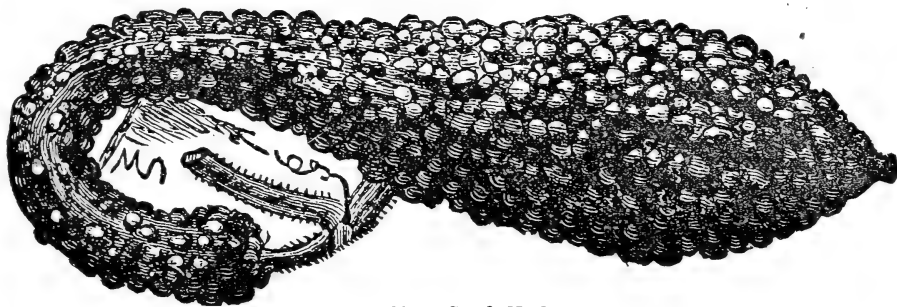
Sow about the same times as winter turnips, on light, rich soil, in drills eighteen inches apart; give frequent cultivation, and thin two to six inches apart, according to size of the variety. For winter use pull before severe frost, and store in damp sand in cellar.

Scarlet China—Roots cylindrical, or largest at the bottom, tapering abruptly to a small tap. Skin very smooth and of a bright rose color; flesh firm, crisp, tender and quite pungent. Pkt. 5c, oz. 10c, ¼ lb. 20c.

Half Long Black Spanish—An American sort of the same general character as the Long Black Spanish, but by many considered superior to either the Round or the Long Black Spanish. It is intermediate in shape between the two, and seems to combine the good qualities of both. Pkt. 5c, oz. 10c, ¼ lb. 20c.

Long Black Spanish—One of the latest as well as the hardiest of the radishes. An excellent sort for winter use. Pkt. 5c, oz. 10c, ¼ lb. 20c.

Squash



Giant Crook-Neck.

Delicata—Early and very prolific; of oblong shape; ground color, orange yellow, splashed and striped with very dark green. Although of small size, the squashes are very solid and heavy, while the quality is rich and dry.

Early White Bush Scallop—Similar in form to the preceding, but with a cream white skin, and more tender and delicate flesh.

Mammoth White Bush—This has been obtained by years of careful selection. Although we have sold this squash for a number of years, we again call special attention to it.

Mammoth Chili—The largest of all the squashes, growing to an immense size, often weighing over two hundred pounds, while its rich, fine-flavored flesh insures its value for all purposes.

Orange Marrow—A variety developed by selection from the Boston Marrow, and not so large but much earlier, and the earliest of the winter varieties. Fruit deep orange color, netted with cream; shape similar to Boston Marrow; flesh thick, deep yellow, of fine quality.

Essex Hybrid—This is not only one of the richest flavored, finest grain and sweetest of all squashes, but it is also one of the very best keepers that we know of. Short, cylindrical shape, having on the blossom end a small cap-shaped enlargement. The flesh is dry, sweet and thick, and of a bright orange color.

Boston Marrow—Second early, coming in about ten days after the Bush and Crook-neck sorts. Skin yellowish, very thin; the flesh dry and fine grained, and of unsurpassed flavor.

Hubbard—A general favorite and more generally grown as a late sort than any other; it is of large size, often weighing from

nine to ten pounds. Color bluish green, occasionally marked with brownish orange or yellow. Flesh fine grained, dry, and of excellent flavor. It can be had in use from September to May.

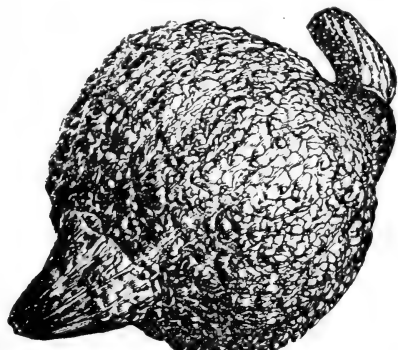
Warty Hubbard—Also called Chicago Warty Hubbard. This strain of squash was introduced by S. F. Leonard in 1894. It originated with John Oly, an old-time Chicago market gardener, and for years previous to its general introduction to the trade was known at Chicago as Leonard's Warty Hubbard, which is its proper name. Ours is headquarters seed.

Best for Baking—Best for Pies—the Best Keeping Winter

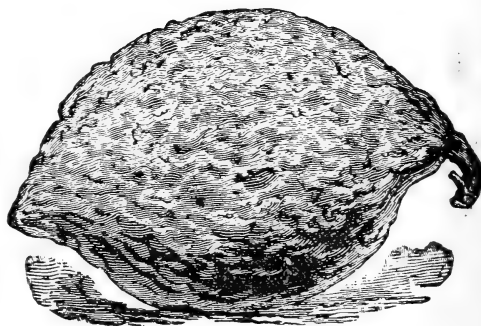
Squash is the Warty Hubbard.

Squash Price List

	Pkt.	Oz.		Pkt.	Oz.
Giant Straight-neck	\$.05	\$.15	Mammoth Chili	\$.10	\$.25
Golden Custard	.05	.15	Orange Marrow	.05	.15
Delicata	.05	.15	Essex Hybrid	.05	.15
Giant Crook-neck	.05	.15	Boston Marrow	.05	.15
White Bush	.05	.15	Hubbard	.05	.15
Mammoth White Bush	.05	.15	Warty Hubbard	.05	.15



Warty Hubbard.



Orange Marrow.



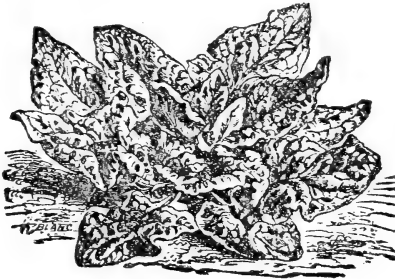
Peanut

The peanut thrives best and produces the largest crops in light sandy and fairly rich soil. As soon as the ground becomes warm lay off ridges three feet apart and plant the seed, removing the outer shell, and placing three or four seed every two feet. Cultivate frequently. The nuts form underground and should be dug and dried as soon as the plants have died down.

Price by mail, lb. 25c; by express or freight, lb. 15c, 10 lbs. \$1.25.

Spinach

Culture—A rich black soil is best for spinach; in this it will grow quickly, and is most tender and succulent. For main crop the seed is usually sown the previous fall during September and protected through the winter by a covering of leaves or straw, which should be raked off early in the spring. Beginning early in the spring, as soon as the ground can be worked, it may be sown at any time during the season. Rake the soil finely and sow broadcast, covering one-half inch deep.



Victoria.

✓ **Victoria**—The foliage is heavy and of true Savoy appearance. The fact that it remains in condition longer, standing from two to three weeks longer, before running to seed, than any other variety, makes it unequalled for spring planting. Excellent for the home garden. Pkt. 5c, oz. 10c, ¼ lb. 15c, lb. 35c. By express or freight, lb. 20c, 5 lbs. 90c.

✓ **Long Standing**—Excellent for spring planting. The leaves are large, thick, fleshy and crumpled. Pkt. 5c, oz. 10c, ¼ lb. 15c, lb. 35c. By express or freight, lb. 20c, 5 lbs. 85c.

✓ **Bloomsdale, or Savoy Leaved**—The numerous large leaves are curled, wrinkled and blistered. The best for fall or early spring sowing, or for shipping to market. Pkt. 5c, oz. 10c, ¼ lb. 15c, lb. 30c. By express or freight, lb. 20c, 5 lbs. 85c.

Rhubarb

Myatt's Victoria—The standard sort. Pkt. 5c, oz. 15c, ¼ lb. 35c, lb. \$1.00.

Rhubarb Roots

Rhubarb Roots—Strong two-year old roots. By express or freight, each, 10c; per dozen, 75c; per 100 \$5.00.



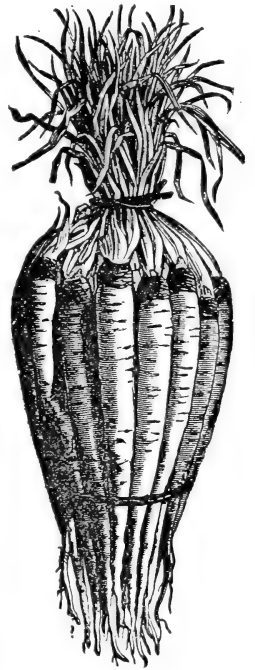
Myatt's Victoria.

Salsify

Culture—Salsify requires a light sandy soil, which should be well enriched, but coarse, fresh manure should be avoided, as it causes the roots to become crooked and prongy. As soon as the ground can be prepared in the spring, spade deeply; rake the surface fine and sow the seed one and one-half inches deep in rows one and one-half feet apart. When the plants are a few inches high, thin out to four inches apart in the row. The roots are not injured by freezing, and may be left in the ground all winter; this improves the flavor. Or, they may be lifted and stored in a cellar.

The salsify is one of the most delicious and wholesome vegetables for winter use, and should be more generally grown. The roots resemble a small parsnip. The flavor when cooked is that of an oyster. They are as easily grown as parsnips.

Mammoth Sandwich Island—The best variety. The roots grow to double the size of the old sort, are very smooth, of superior quality and delicate flavor. Pkt. 5c, oz. 10c, ¼ lb. 30c, lb. \$1.00.



Tobacco



Connecticut Seed Leaf Tobacco.

General Grant—Very early, and a good yielder. Pkt. 5c, oz. 20c.

Connecticut Seed Leaf—The best sort for cigar wrappers. Try it. Pkt. 5c, oz. 20c.

Havana—This is the genuine article, and is first-class. Pkt. 5c, oz. 20c.

Ohio—White leaved. A large yielder. Pkt. 5c, oz. 20c.

You cannot afford to buy cheap Seeds.
We offer you reliable Seed as cheap as
they can be sold.

Tomato

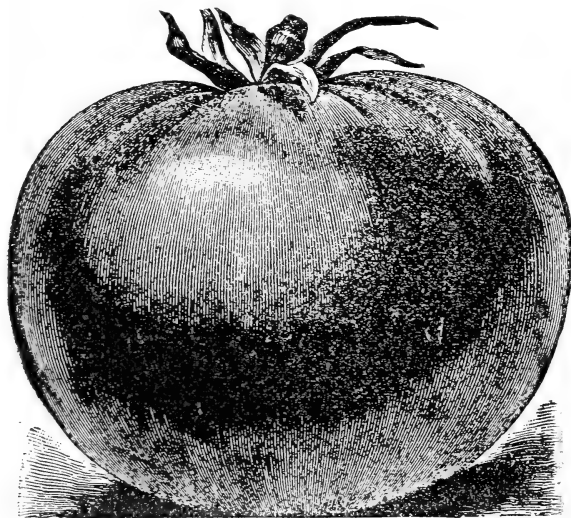
This is a very important vegetable for a market gardener. Each market demands its own special favorite, and market gardeners must look out and get the proper kind which the market they supply needs. Unless you are sure that a new variety is all right, stick to the old one.

Beauty—A decided favorite for either home market or shipping purposes, being early, hardy, a strong grower, productive, large size, always smooth, perfect in shape and excellent in quality. The color is a very glossy crimson, with a tinge of purple. It grows in clusters of four to six large fruit, retaining its large size late in the season. It ripens with Acme and Perfection, and is entirely free from ribbed and elongated fruit. Pkt. 5c, oz. 25c.

Magnus—A new variety. It is very distinct, having the color of Livingston's Beauty and Acme, but thicker, heavier and more solid than either. The form is uniformly perfect, large and attractive, very deep from blossom to stem end, and almost globe shaped. Fruit in clusters, ripening evenly and maturing quickly enough for early market. Flesh is firm and flavor most desirable. Pkt. 5c, oz. 30c, $\frac{1}{4}$ lb. \$1.00.

Ponderosa—This variety, when conditions are favorable, grows to an immense size and makes the heaviest fruit of any in the list. Our stock is from the original strain; none better. Pkt. 5c, oz. 30c, $\frac{1}{4}$ lb. \$1.00.

Sparks' Earliana—Said to be earliest large tomato in the world. This tomato is not only remarkable for its earliness, but for its very large size, handsome shape and bright red color. Its solidity and fine quality are quite equal to the best medium and late sorts. From less than 4,000 hills the originator realized from his first pickings \$725.00 clear of freight and commission, being in the market fully a week before all others. Pkt. 5c, oz. 40c, $\frac{1}{4}$ lb. \$1.00.

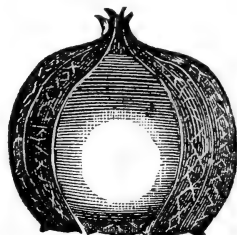


Spark's Earliana.

Dwarf Champion—This is a purple fruited variety, which forms very strong plants about two feet high. The branches are short, making a bushy plant that stands quite erect without stakes. This sort is often sold as Tree Tomato. Fruit smooth, medium sized, color purplish pink, fairly solid, but has no hard core, and is of good flavor. About as early as any purple fruited tomato, and is quite popular in some localities, both for market and home use. Pkt. 5c, oz. 30c.

New Stone—A fine new red variety, very solid and smooth; a splendid main crop sort. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 65c.

Royal Red—A new sort, of considerable merit. Vines vigorous; fruit smooth; very productive. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 65c.

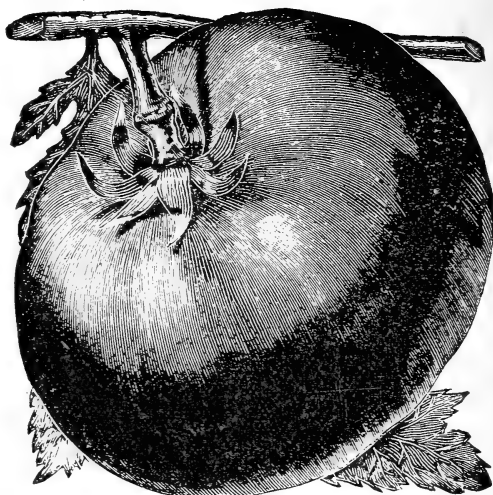


Husk Tomato.

Yellow Plum—A small, yellow variety, of handsome appearance and fair quality. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 75c.

Husk, or Ground Cherry—This is a small sized fruit grown within a husk. It is valuable for preserving, for making into pies, or for eating from the hand. Pkt. 5c, oz. 20c.

Acme—One of the best standard sorts. Of a fine crimson purplish color; shape smooth, size large, uniform. For the market or home garden no sort is better. Pkt. 5c, oz. 30c.



Magnus.

The New Imperial—Without doubt this is the best main crop tomato now in cultivation. It is large, solid and smooth; has the right color for the Chicago market, and makes the evenest, handsomest show in the tomato box of any we have. We think it better than Acme, Essex Hybrid or Beauty, and that is as much as we need say of any tomato. Pkt. 5c, $\frac{1}{2}$ oz. 10c, oz. 20c, $\frac{1}{4}$ lb. 75c.

Livingston's Favorite—A well-known red variety, smooth and solid. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 60c.

Optimus—One of the best table tomatoes. Vine medium sized, vigorous and strong. While not classed as a first early, it is reported by growers to ripen fully as early as many of the earliest, making an excellent forcing variety. The fruit is medium sized, oval, very smooth, and of a very bright crimson-scarlet color. Pkt. 5c, oz. 30c, $\frac{1}{4}$ lb. \$1.00.

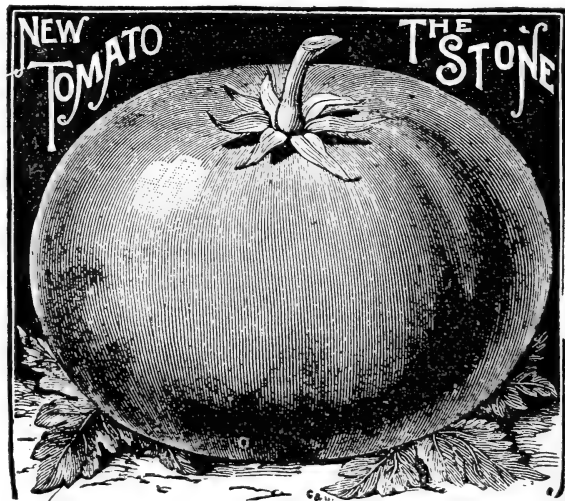
Perfection—A splendid red variety, hardy, productive, and good bearer. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 60c.

Atlantic Prize—A very early variety; fairly smooth; good for first crop. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 60c.

Trophy—A good main crop sort; color, red; fruit large. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 60c.

The Honor Bright—This is a remarkable red variety. The color of the fruit, when fully ripe, is a rich, bright red; but before reaching this stage, it undergoes several interesting changes. First, it is a light green; then an attractive, waxy white; then lemon, changing to red. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 75c.

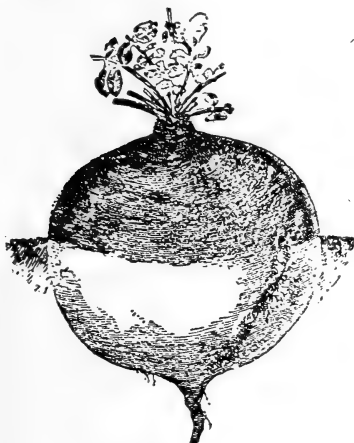
Matchless—A good canning and all purpose tomato; splendid for kitchen. Pkt. 5c, oz. 25c, $\frac{1}{4}$ lb. 65c.



miv

Turnip

Culture—Turnip is one of the first seeds to be sown in the spring. As soon as the ground can be worked, spade or plow deeply and prepare the surface finely, raking off all clods and stones. Sow the seeds at once in the freshly dug soil; sow very thinly and rake the seed into the soil one-half inch deep; when up, thin out to six inches apart. Turnips become tough and strong during the hot summer weather, and the sowings should be so regulated that they will become fit for use either early in summer or late autumn. For winter use, sow from the middle of July to end of August.



Rutabaga—Long Island.



Purple Top Strap Leaved.



Scarlet Kashmyr.

	Pkt.	Oz.	¼ lb.	Lb.
✓ Extra Early Purple Top Milan—Few and short leaves, mild flavor	5c	10c	20c	60c
✓ Extra Early White Milan—Identical with the above, except pure white	5c	10c	20c	75c
✓ White Egg—Perfectly smooth; grows quickly, tender and mild; unequaled table sort	5c	10c	15c	50c
✓ Early White Flat Dutch, or Spring—Good size, fine quality	5c	10c	15c	50c
✓ Purple Top White Globe—Large size; perfect globe shape; good shape	5c	10c	15c	50c
✓ Purple Top Strap Leaved—The standard main crop sort; heavy yielder	5c	10c	15c	50c
✓ Golden Ball, or Orange Jelly—Medium size, yellow skin and flesh; mild and fine flavored	5c	10c	15c	50c
✓ Scarlet Kashmyr—Distinct sort; color bright red, attractive; early	5c	10c	15c	50c
✓ Long White Cow Horn—Especially recommended for feeding; roots very long; heavy cropper...	5c	10c	15c	50c
✓ Amber Globe—The best yellow field sort; heavy cropper; large size; keeps well	5c	10c	15c	45c

Rutabaga

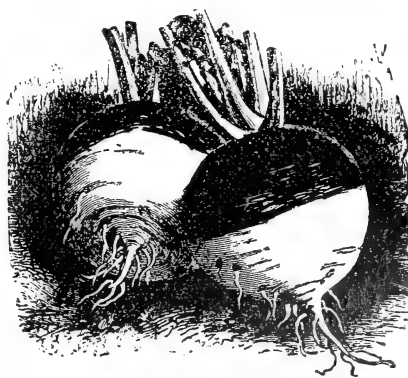
✓ Long Island Purple Top—An American yellow fleshed sort; large size; best keeper	5c	10c	15c	50c
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Early White Flat Dutch.

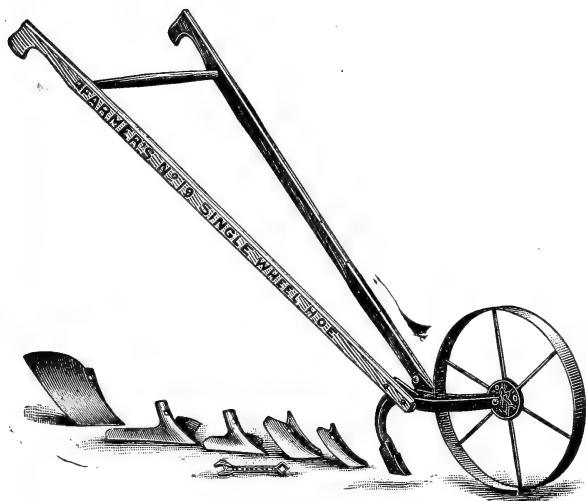


White Egg.



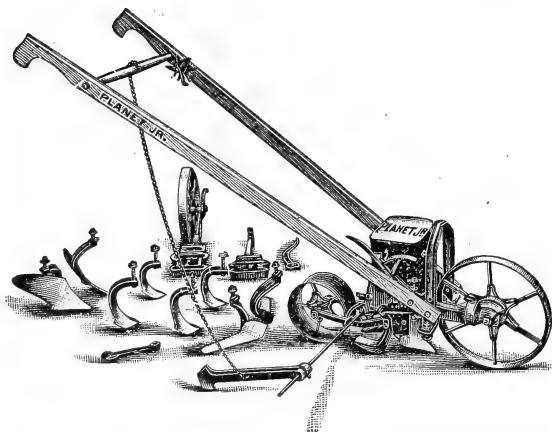
Purple Top White Globe.

Planet Jr. Tools



No. 19—Price \$3.75.

No. 25 Planet Jr. Combined Hill and Drill Seeder and Double Wheel Hoe, Cultivator and Plow



No. 25—Price \$13.50.

11¼-inch wheels; holds 2½ quarts. Weight, packed, 59 lbs. It combines in a most practical way the Planet Jr. No. 4 Drill and No. 12 Double Wheel Hoe. This new combined machine is intended for gardeners who have a large enough acreage in crops for a Double Wheel Hoe can be used to good advantage, and yet prefer not to buy a Seeder and Wheel Hoe separate. The Seeder is large enough for field use, and works admirably. As a seeder it is practically the same as the Planet Jr. No. 4; will sow in drills any thickness or drop in hills, 4, 6, 8, 12 or 24 inches apart, and has the same feed, hill dropping mechanism and automatic device for stopping the feed, and has also the new seed index. It is thoroughly substantial and is accurate in planting all kinds of garden seeds in either hills or drills.

As a Wheel Hoe it is practically the same as the admirable Planet Jr. No. 12 Double Wheel Hoe. It has 11¼-inch wheels, which are just the right size.

"Farmers" No. 19 Single Wheel Hoe, Cultivator and Plow

Price, \$3.75.

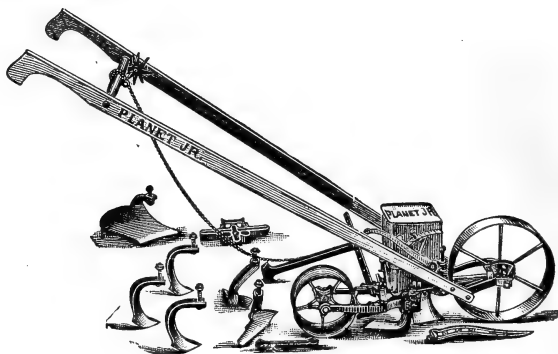
Weight, 22 pounds.

This new and attractive implement is especially designed for the farmer's garden work, though it offers to everyone with either field or garden a cheap and effective tool for hand wheel hoe operations.

The wheel is high, the standard is slotted to make regulation of depth easy, and an adjustable malleable piece carries perfectly all the steels that go with the machine.

Write for further description of Cultivators, Harrows and other Wheel Hoes.

No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe Cultivator and Plow



No. 4—Price Complete, \$10.50.

As a Seeder, only \$8.50.

Steel driving wheel. Holds 2½ quarts.

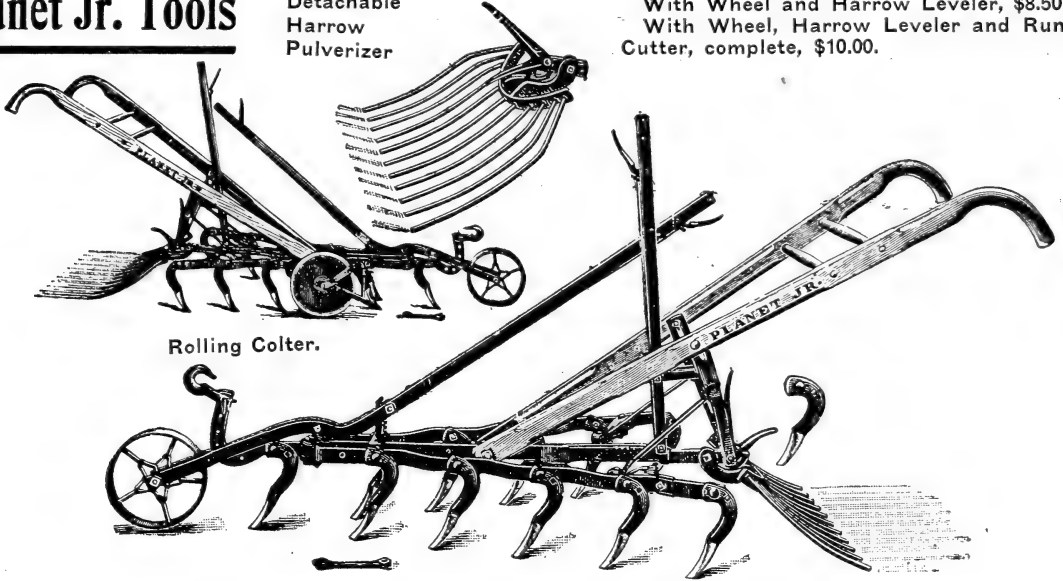
Weight, packed, 47 lbs.

This tool has been continuously improved, and has been brought to a point of such usefulness and perfection that we can hardly recommend it too highly. It combines, in a single convenient implement, a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, an excellent furrower, a capital wheel cultivator and a rapid and efficient wheel garden plow. In a word, it is without an equal in variety of tools, easy adjustment, lightness, strength and beauty. It is a practical, every day time, labor and money saver. Its work as a seeder is marvelous. It sows in continuous rows with the greatest uniformity, and also drops with accuracy in hills 4, 6, 8, 12 or 24 inches apart. The feed is automatically stopped by simply raising the handles, and started by lowering them.

Planet Jr. Tools

This is the
Detachable
Harrow
Pulverizer

Price, Plain, \$5.80; with Wheel, \$6.90;
Packed weight, 74 lbs.
With Wheel and Harrow Leveler, \$8.50.
With Wheel, Harrow Leveler and Runner
Cutter, complete, \$10.00.



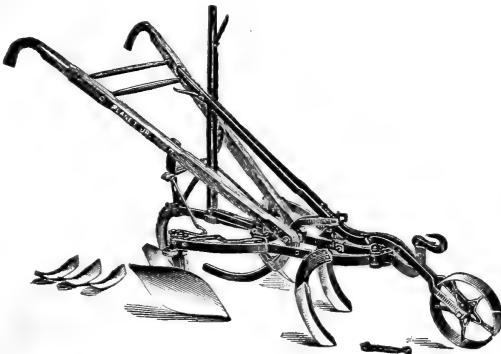
Rolling Colter.

TWELVE TOOTH HARROW, CULTIVATOR AND PULVERISER.

This tool has rapidly grown in favor among strawberry growers, market gardeners, truckers and farmers. This is because the twelve chisel-shaped teeth do such thorough work, yet without throwing earth on small plants, and because the tool is so convenient, durable and strong. The combination of teeth and pulverizer leaves the ground in the finest condition. The pulverizer used with the lever wheel also enables the operator to set the tool exactly to any depth desired, making delicate work not only possible, but very easy. It is invaluable in narrow rows and fine work in market gardens, and close work on the farm. Harrow cultivator is raised and lowered by the foot, detachable.

The great importance of fine, close work is more fully appreciated of recent years, and frequent cultivation of the surface with numerous fine teeth which do not hill the crops, is just what is wanted in many sections.

One trucker tells us he sets this tool to run shallow by means of the wheel and pulverizer, and then has one of his boys use it continually. He says it keeps down the young weeds while cultivating close up to the plants without danger to them, and the surface stirring of this character is so satisfactory that he intends to use the twelve-tooth harrow a great deal more in the future.



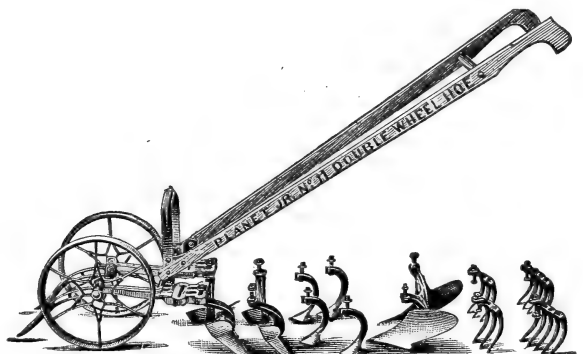
NO. 8 PLANET JR. HORSE HOE AND CULTIVATOR.

Price, with attachments as shown in cut, \$9.00.

Packed, weight 82 pounds.

The Horse Hoes and Cultivators close to 9 and open to 25 inches.

strongest pattern, mutually stiffening the frame and strongest pattern, mutually stiffening the frame and being stiffened by it. They are round in the throat; they polish in use, and the frame being extra high, they can scarcely be clogged.



No. 11 PLANET JR. DOUBLE WHEEL HOE.

Price, with attachments as in cut, \$9.00.

Packed, weight 37 pounds.

One pair 6-inch Hoes, one pair 4-inch Hoes, two pairs Hollow Steel Cultivator Teeth, one pair Plows, two 3-tooth Rakes, two 5-tooth rakes, and two Leaf Lifters.

No. 12 PLANET JR. DOUBLE WHEEL HOE.

Price, \$7.00.

One pair of 6-inch Hoes, two pairs of hollow steel Cultivator Teeth, one pair of Plows, and one pair of Leaf Lifters.

Packed, weight 32 pounds.

No. 13 PLANET JR. DOUBLE WHEEL HOE.

Hoes only, price \$4.75.

Plant Department

We have added this line the past season and beg to say we have connections with one of the best greenhouses in the West. All stock that we list is absolutely first-class and true to name. We will guarantee all plants as represented. We can also furnish cut flowers in season, such as Roses, Carnations, etc., at prices that are right. We also take orders for funeral work, and can furnish designs from \$3.00 up. We kindly solicit your orders on the above line and assure you prompt shipping. All prices on plants, etc., are delivered to express companies at St. Joseph.

A Choice Collection of Hardy Plants

Hardy Phlox, Early Flowering—These we consider the most desirable of all hardy perennials, flowering abundantly from July until late in the autumn. These new French varieties are of a dwarf growth, seldom attaining a height of over 12 to 18 inches. The immense flower heads often measure from 7 to 9 inches across, with flowers as large as a silver dollar, and comprise all shades of colors, vermilion to white. They delight in sunny location and rich soil, but are by no means particular. **Price 15c each, \$1.50 per doz.**

Honeysuckles—White and red. 50c each.

Shasta Daisy—Perfectly hardy, of easy cultivation and blooms for several months. The flowers are large, averaging a foot or more in circumference, with large, broad petals of the purest white. One of Mr. Burbank's productions. One foot June to October. **Each, 15c; 12 for \$1.50. Strong clumps, each, 35c; doz., \$3.00.**

Hardy Pinks—Each, 15c, \$1.50 doz.

Hydrangea Paniculata Grandiflora—Tens of thousands of this noble summer and autumn-flowering shrub have been sold the past few years, and the demand is now universal. They grow to a height of 5 to 7 feet and are absolutely hardy, grow in any soil and bloom the same year they are set out. They flower abundantly, bearing immense balls panicles of bloom 7 to 10 inches across, white at first, turning to rose in autumn. They begin to bloom in August and continue until frost. To make a fine specimen the soil should be prepared as for any other shrub. An annual shortening of branches tends to increase the size of the flowers. When first planted the branches should be pruned to within 6 inches of the center stem. **50c each.**

Carnations

The new carnations are the most popular, beautiful and durable cut flowers for personal wear and for decorations. The mammoth new ones are giants in size, some 3½ inches across; beautiful in coloring, perfect in form and shape of flower; strong stems, free blooming and fragrant; useful for every occasion. The best carnations rival the best new roses in popularity. Our very best selections.



Enchantress—A phenomenal success. Color, delicate blush pink, deepening towards the center. Size, 3½ inches across. Form and calyx flawless, stems long and stiff. Sure to be a favorite.

Flamingo—Color, dark scarlet; large, full flowers, 3½ inches, with a 30-inch stem, which holds the handsome flower perfectly. Winning the Silver Medal at Brooklyn.

Mrs. Thos. W. Lawson—This is without doubt the largest pink carnation at the present time. The flowers measure over 3½ inches in diameter. The color is a beautiful deep pink. The originator of this grand carnation was paid \$30,000 for the original stock, the highest price ever paid for a plant novelty in this country.

Mrs. M. A. Patten—A splendid new variegated variety; white with distinct red stripes, making a most pleasing effect. It is a very large flower and more free than any of its class.

Nelson Fisher—The large 3-inch flowers are a deep cerise pink, very free flowering habit; considered the best of its color; very fragrant.

Lady Bountiful—Color, pure glistening white; size 3½ inches; perfect form, very fragrant. A strong feature is its wonderful blooming qualities. This is one of the best new whites of last year.

Price: Large plants, 25c; small, 15c.

The Boston Fern, Nephrolepis Bostoniensis—This is a wonderfully healthy, rapid growing and graceful house plant; in great demand. Many people have bought it in preference to the finest Palms or Rubber Plants. Thrives in all rooms; gas or furnace heat does not seem to injure it. Fronds are often six to seven feet long, a 4-inch plant increasing to 10-inch size in a year, besides making many new off-shoots. A good sized plant contains from 20 to 40 fronds, and the fresh ones continually coming out with new growth are very beautiful. Best of all for hanging baskets. Our plants are all well established in pots, not weak runners torn loose from soil. **Price, 15c to \$5.00, according to size.**

The New Fern, Nephrolepis Elegantissima—A sport or variation from the popular Boston fern, from which it is quite distinct. The small side pinnae are again subdivided, producing an exquisite and beautiful effect, changing the entire character of the fronds, which measures less than half the length and about twice the breadth of the Boston fern fronds. The side pinnae of the fronds stand out at right angles, making the frond much thicker and fluffier than any other. **Small plants, each, \$1.00, 6 for \$5.00.**

Roses

The New Rose, Baby Rambler—Blooms all the time. The best red pot or bedding rose in the world. Same color as the climbing Crimson Rambler, with clusters of from 20 to 40 open flowers at one time. It blooms every day from May until November, if planted out, and in pots all the year round. It has created a wonderful sensation. Is perfectly hardy. **Small plant, 25c; 2-year-old, 50c.**

Clothilde Soupert—This is the most famous pot and bedding rose (Polyantha Tea). Its charming coloring, shading from pearly white to purest rose, double blossoms, delightful fragrance, wonderful vigor and freedom of bloom combine to make it a most beautiful rose. **Price, 15c to 50c.**

American Beauty—The largest, sweetest and best of all hardy roses. It is a genuine hardy everblooming rose. For immensity in size, rich color, exquisite form and delicious fragrance, it stands without an equal. It is a continuous bloomer, valuable both for house and garden culture. Color is a rich crimson; its fragrance is wonderfully sweet. **Price, 15c to 50c.**

Kaiserin Augusta Victoria—Color soft pearly white; fragrant. It is valuable for cut flowers, so free that every shoot is invariably crowned with a magnificent flower; the finest of its class, and succeeds splendidly out of doors. **Each, 15c; large ones, 50c.**

CLIMBING ROSES.

Crimson Rambler—The finest one grown. **50c to 75c.**

A GENERAL COLLECTION OF CHOICE HOUSE AND BEDDING PLANTS.

Coleus—5c each, 50c per doz.

Asters—The finest strain. 5c each, 50c per doz.

Cyclamen—15c to 50c each.

Primroses—15c to 35c each.

Salvia, or Scarlet Sage—10c each, \$1.00 per doz.

Ageratum—White or blue. 10c each, \$1.00 per doz.

Sweet Alyssum—10c each, 75c per doz.

Begonias—15c to 50c each.

Asparagus Fern—15c to 50c each.

Asparagus Sprengeri—15c to 50c each.

Centaurea, or Dusty Miller—For borders. 5c each, 50c per doz.

Mosses—15c to 25c each.

Pansies—5c each, 50c per doz.

Double Daisies—For borders. 5c each, 50c per doz.

Heliotropes—Three colors. 10c to 15c each.

Verbenas—5c each to 50c per doz.

Petunias—All colors. 10c to 25c each.

German Stocks—Very fine. 15c each, \$1.50 per doz.

Cigar Plant—10c each, \$1.00 per doz.

A general collection of vines for vases, 10c to \$1 doz.

Geraniums

We carry nothing but the very best standard varieties, in all colors; also Ivy Leaf, Rose Leaf and Pelargoniums, or commonly called Lady Washington.

Price: First size, 15c each, \$1.50 per dozen.

Price: Second size, 10c each, \$1.00 per dozen.

Lady Washington, 25c to 40c each.

Cannas

In this beautiful class of plants we aim to have only those varieties that produce those grand orchid-like flowers, such as Burbank Austria Yellow.

Pennsylvania—Deep red; extra large.

Mack Crory—Vermilion, with gold band around each petal.

Price: First size, 25c each, \$2.50 per dozen.

Price: Second size, 15c each, \$1.50 per dozen.

Choice Flower Seeds

Standard Varieties

The following is a list of the leading flowers grown from seed. While they are not all annuals, they will bloom the first season; some, of course, being planted somewhat earlier than others. We have listed only those strains that are reliable, and are sure to satisfy our customers. Our prices will be found as low as any reliable house for quality and quantity given. These varieties are especially adapted for market gardeners. All flower seeds sent free by mail at catalogue prices.

	Per pkt.
Abronia , umbellata, mixed	\$0.05
Acroclinum , album .....	.05
Roseum .....	.05
Ageratum Mexicanum , light blue .....	.05
Agrostemma , mixed .....	.05
Alyssum , sweet maritimum .....	.05
Little Gem, benthami, compactum, erectum .....	.05
Amaranthus , tricolor, Joseph's Coat .....	.05
Anterrhinum , majus, mixed .....	.05
Tom Thumb, mixed, fine strain .....	.05
Auricula , mixed .....	.10
Bachelor's Button , centaurea cyanus .....	.05
Double, mixed .....	.10
Balloon Vine , cardiospermum halicacabum .....	.05
Balsam , White Perfection .....	.10
Camellia, mixed .....	.10
red .....	.10
striped .....	.10
Roseflowered, mixed .....	.05
Brachycome Iberdifolia , Swan River Daisy, mixed .....	.05



Alyssum.



Cineraria.

	Per pkt.
Calliopsis , fine, mixed	\$0.05
Candytuft , fragrant, white .....	.05
White Rocket .....	.05
Mixed .....	.05
Canna Indica , fine, mixed .....	.05
Crozy, mixed .....	.05
Canterbury Belle , campanula media, single, mixed .....	.05
Double, mixed .....	.05
Carnation , fine .....	.10
Margaret, finest mixed .....	.10
Castor Beans .....	.05
Chrysanthemum Coronarium , double, mixed .....	.05
Double, white .....	.05
Cineraria Hybridia , large flowering, mixed .....	.25
Cobea Scandens .....	.05
Cosmos , finest mixed, mammoth .....	.05
Cockscomb , mixed .....	.05
Coleus , large leaved, finest mixed .....	.25
Convolvulus Minor , Dwarf Morning Glory .....	.05



Calliopsis.



Four O'Clock.

All the Varieties of
Flower Seeds we list
are the kinds that
should be in every
garden.

Cypress Vine , mixed	\$0.05
Dahlia , finest, double, mixed .....	.05
Single, mixed .....	.05
Daisy , finest quality, double, mixed .....	.05
Eschscholtzia Californica , finest, mixed colors .....	.05
Forget-Me-Not , myosotis alpestris, blue .....	.05
Four O'Clock , Marvel of Peru, mixed .....	.05
Globe Amaranth , gomphrena globosa, mixed .....	.05
Gourt , dish cloth .....	.05
Japanese nest egg .....	.05
Hercules' club .....	.05
Pear shaped .....	.05
Sugar trough .....	.05
Mixed .....	.05

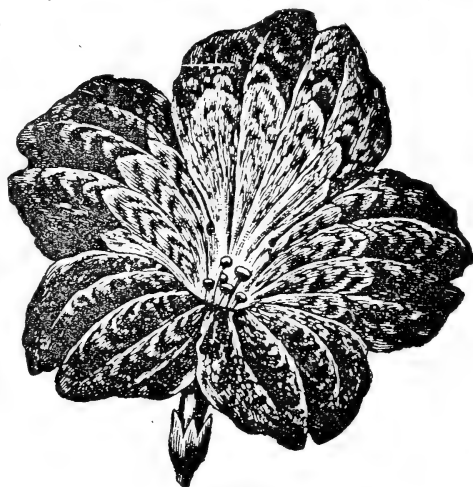
FLOWER SEED--Continued



Double Poppies.

	Per pkt.
Geranium, mixed	\$.10
Gypsophylla, mixed	.05
Godetia, mixed	.05
Helichrysum, largest, double, mixed	.05
Heliotrope, fine mixed	.10
Hollyhock, double, choicest mixed	.05
Double, pure white	.10
Double, red	.10
Double, maroon	.10
Hyacinth Bean, dolichos lablab, mixed, all colors	.05
Ipomea, bona nox (good night)	.05
Grandiflora alba, Moonflower, white seeded	.05
Larkspur, double dwarf, mixed	.05
Lobelia Erinus, Crystal Palace	.05
Linum, grandiflorum rubrum	.05
Love Grove, nemophila, mixed	.05
Love-in-a-Mist, nigella damascena, mixed	.05
Lupinus, mixed, all colors	.05
Marigold, African, double, mixed	.05
French double, mixed	.05
Eldorado	.05
Mauarndia, mixed	.05
Mignonette, sweet, oz. 10c	.05
Matchet	.05
Golden Queen	.05
Mimulus Moschatus, musk plant	.05
Morning Glory, convolvulus major, mixed, 1/4 lb. 15c, oz. 10c	.05
White	.05
Blue	.05
Crimson	.05
Japanese Imperial, mixed	.05
Mourning Bride, dwarf, double, mixed, Scabiosa	.05

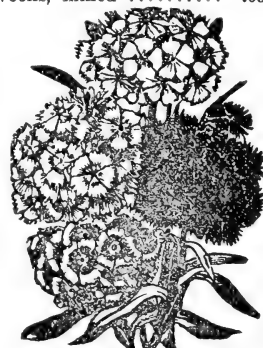
Pansy, Emperor William	.10
King of Blacks	.10
Leonard's Giant 5-	
Spotted, very fine	
Giant Striped	.10
Odier, large stained	.10
Red. Flrd. Victoria	.10
Peacock	.10
Large Flrd. Parisian, very large, stained	.10
Trimardeau	.10
Extra choice, mixed	.05
Fine, mixed	.05



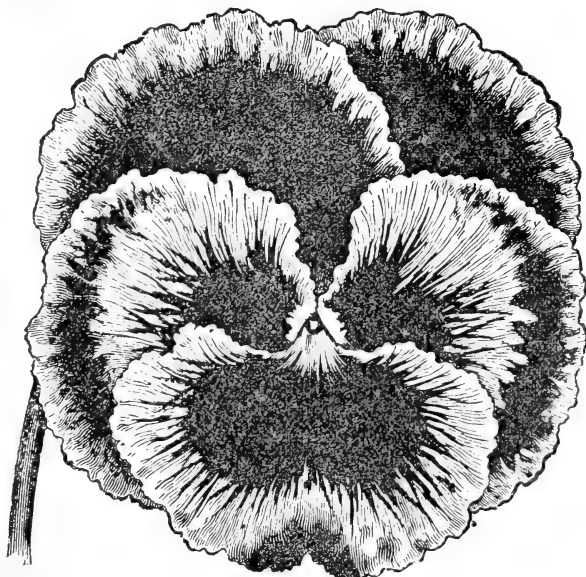
Salpiglossis.

Pinks, Dianthus, Chinensis, double China pinks, mixed	.05
Heddewig's Double Diadem Mixed, very fine	.05
Heddewig's Finest Single, Mixed	.05
Crimson Belle, double, crimson	.10
Eastern Queen, double, white	.10
Petunia, fine, mixed	.05
Double Superb, mixed	.25
Phlox, Drummond, Star	.10
Alba, pure white	.10
Carmine, red	.10
Black Warrior	.10
Splendid, mixed	.05
Stocks, double German, ten weeks, mixed	.05

Sunflower, Globosus fistulosus, double	.05
Sweet William, single mixed, fine	.05
Verbena, Defiance, deep scarlet	.10
Blue	.10
White	.10
Mammoth, extra choice, mixed	.10
Fine, mixed	.05
Wallflower, double, mixed, extra fine	.10
Zinnia, Pompon, finest mixed	.05
Choicest mixed	.05
Scarlet	.05
Notice our Sweet Peas and Nasturtiums, page 24 also the Special Strains of Popular Flowers, page 25.	



Sweet William.



Giant Fire Spotted Pansy.

Our Special Strains of Popular Flowers

Pansy=Masterpiece Giant Curled

Our seed is true and pure from the originator. This strain comes nearest to double pansies than anything ever introduced under that name. In reality the number of petals is the same as that in other pansy flowers, but they are crimpled and curled in such a fashion that the flowers appear double. The flowers are of enormous size, often three inches across, and the color variations and combinations are odd and striking. Pkt. 10c.

Superb Nasturtiums

For ease of culture, duration of bloom, brilliancy of coloring and general excellence, nothing excels nasturtiums. All they need is a moderately good soil in a well drained, sunny position, and from within a few weeks from the time they are sown until hard frost comes there is an endless profusion of their gorgeous blossoms.

The identical colors can be had in either the tall, or climbing, or dwarf, or Tom Thumb types. The former grow 5 to 6 feet high, and are unexcelled for growing on fences, trellis, or trailing over rocks and rough ground, etc., while the Tom Thumbs are leading subjects for beds or borders,

and both are largely in demand for use in hanging baskets, vases, window-boxes, etc.



Superb Collection
of Nasturtiums.

INCOMPARABLE
COLLECTION OF

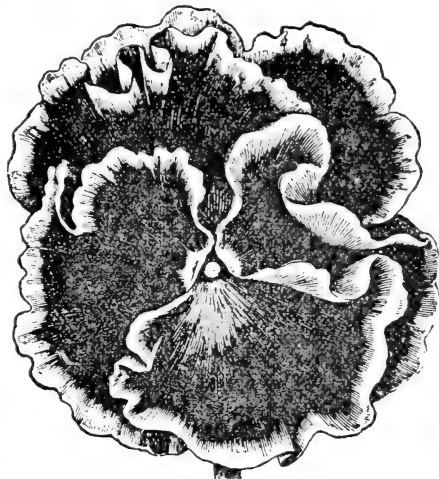
Sweet Peas

This collection is made up of very choice sorts—varieties that have the endorsement of the leading American and European specialists—and it would be impossible to select another similar collection out of the vast number of sorts now in commerce that would combine, in the same degree, all the qualities which go to make up first-class varieties.

America—Bright blood-red striped on a white ground.
Blanche Ferry Extra Early—The popular pink and white.
Cocinea—Rich, brilliant cerise.
Countess Cadogan—The brightest blue.
Dorothy Tennant—Deep mauve; a lovely shade.
Duke of Clarence—Dark claret; a fine dark sort.
Gorgeous—Bright orange, wings rose-tinged orange.
Lady Grisel Hamilton—The finest pale lavender.
Lady Mary Currie—Bright crimson orange.
Lottie Eckford—White shaded and edged lavender-blue.
Prince of Wales—The finest bright rose.
Queen Victoria—Primrose-yellow.
Sadie Burpee—Very large, pure white.
Salopian—Deep scarlet or cardinal; the finest red.
Stella Morse—Primrose, tinged blush; effect a rich cream color.
Lovely—Soft shell-pink; an exquisite shade.
Modesty—The most delicate shade of all the pinks.
Navy Blue—Deep indigo-blue.
Othello—Very dark maroon.
Prima Donna—A magnificent pure pink.
Prince Edward of York—Scarlet tinged crimson.

Prices: Any of the above, 5c per pkt, 10c per oz., 20c per 1/4 lb., 50c per lb.

Collection of a packet each of any 21 "Incomparable" varieties 60c, or 1 oz. of each \$1.00 postpaid.



Pansy=Masterpiece.

Either Dwarf or Tall Varieties

In Ordering State Whether You Want Dwarf or Tall.

Dwarf or Tall Spotted—Rich orange-yellow, spotted crimson.

" " " **Prince Henry**—Creamy white, spotted and tipped with scarlet.

" " " **Chamelon**—This variety bears different colored flowers on same plant; the flower shown is one of the most frequently seen combinations.

" " " **Chocolate**—A unique color; odd.

" " " **Crimson**—Rich and velvety.

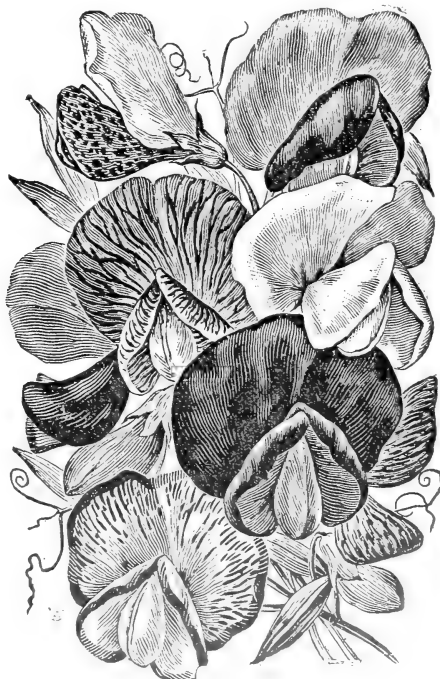
" " " **Orange**—Pure orange, without markings of any kind.

" " " **Pearl**—Creamy white.

" " " **King Theodore**—Deep crimson-maroon, black shadings, an exquisite shade.

Collections containing a pkt. each of any 10 varieties\$0.30

Collections containing 1 oz. each of any 10 varieties75



Sweet Peas.

Our Special Strains of Popular Flowers

Petunias

For outdoor decorations or house culture, few plants are equal to this class. They commence to bloom early, and continue to flower through the summer. Give them rich soil and a sunny place.

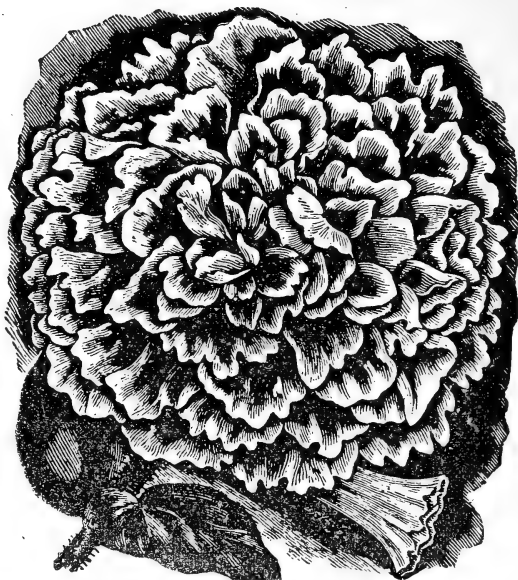
Single Varieties

Single Large Flowering, mixed, all colorsPkt 10c
Fine Mixed, all colorsPkt. 5c

Large-Flowering Double Petunias

Grand, rich, velvety flowers of the largest size. All colors and shades, beautifully veined. Most of the flowers are fringed, and our seed will produce a far greater per cent of double flowers than any other strain. Pkt. 25c.

It is well known that seed saved from the most carefully hybridized flowers produces but a small percentage of double flowers, the balance being singles of unusually fine quality. The weaker seedlings should be carefully saved, as these invariably produce the finest double flowers.



Large Flowering Double Petunia.

Phlox Drummondii

Of all summer-flowering annuals the varieties of Phlox Drummondii are unquestionably one of the most brilliant and satisfactory. Seed may be sown in the open ground any time after danger from frost is past, and in a few weeks the beds or borders are aglow with their brilliant coloring, and remain so until cut down by frost. For early flowering they should be started indoors or in a hot-bed.

Large Flowering Phlox

The largest flowering of the annual Phloxes. Nothing can compare with this indescribable summer flower for beds, massing, etc. Our strain is very select. Large, perfect types of most beautiful colors, shades and marking. Strong, robust growers.

Large Flowering Phlox, mixed colorsPkt. 10c



Phlox.

Superb Asters

Of the general beauty of these flowers it is unnecessary to speak; the immense world-wide demand for them shows their adaptability for any climate; and, coming into bloom, as they do, when most other flowers are fading away, enhances their value. For the best results the ground for the cultivation of asters cannot be too richly prepared, although they will give satisfactory returns on any ordinary garden soil.

Standard Prize Mixture—Victoria	pkt. 10c
“ “ “ Comet	pkt. 10c
“ “ “ Quilled	pkt. 10c
“ “ “ Branching	pkt. 10c
“ “ “ Peony Flowered	pkt. 10c

Christmas Tree Aster

This aster has a pyramidal branching form of growth, giving it the shape of a miniature tree. A very early profuse bloomer, growing about fifteen inches high, but covering an area of from twenty inches to two feet in diameter. Perfect double flowers, all colors, mixed. Pkt. 10c.



Christmas Tree Aster.

General List of Grasses and Clovers

BEST RECLEANED AND TESTED QUALITIES

Price List Subject to Market Changes--Write for Prices on Large Quantities

AWNLESS OR HUNGARIAN BROME GRASS

Stands Excessive Drought or Extreme Cold Without Injury.

This extensively advertised grass was introduced from Russia. It is a vigorous, hardy perennial, with strong creeping rootstalks; smooth, upright, leafy stems, one to four feet high, and loose, open seed heads four to eight inches long. In a few years it forms a very tough sod, soon crowding out other grasses, clovers and weeds. Its remarkable drought resisting qualities have proved it to be the most valuable grass for dry regions, where other grasses could hardly exist. It is thoroughly permanent, and grows with wonderful rapidity, producing heavy crops, and luxuriant pasture; its value to the farmers of dry regions cannot be overestimated. All kinds of stock eat it with relish, and chemical analysis shows that it is richer in flesh-forming ingredients than timothy. It starts to grow very early in the spring, before any of the grasses upon the native prairies show any signs of life, and remains green far into November. Cold will not kill it, it having been grown successfully as far north as Manitoba, in Canada. Without doubt it is the grass for the dry regions of the West. Out of seven or eight hundred varieties tried at the Kansas Experiment Station this proved to be the best.

The South Dakota station has had, perhaps, the most extended and successful experience with Brome Grass, with the result that Professor Chilcott has been able to prepare the following practical directions for planting and subsequent care:

Seed Bed—Prepare the seed bed by plowing to a good depth, using land as free as possible from weeds. Harrow and fine thoroughly.

Sowing—Sow the seed broadcast early in the spring at the rate of fifteen or twenty pounds per acre, and cover with the harrow. In case the ground is liable to blow, sow a thin nurse crop of about one-half bushel of barley or oats.

After Care—In case the weeds grow vigorously or a nurse crop is used, mow once or twice in order to prevent smothering of the tender plants and robbing them of moisture. If, however, no dry spell is present, the nurse crop can be cut for hay, but if a drought does come, mow without delay, and leave the crop to mulch the ground, unless it be so heavy that it will smother the young grass. These precautions are given to insure a stand. You must remember you are not trying to raise the nurse crop, but to get a stand of this new and valuable grass, which will last you many years. Where the danger of blowing is not great, sow without a nurse crop. It is best not to pasture the first year. If the stand looks thin the first fall, do not plow it up, but leave it a second year.

It will usually furnish a crop of seed and a crop of hay the second year. There is a ready sale for the seed at good prices, but it will be more valuable to you for seeding more ground. U. S. Department of Agriculture Bulletin.

Prices for Best New Crop, Home Grown Seed of Strong Germination

By mail, postpaid, lb. 25c; by express or freight, lb. 15c, 10 lbs. \$1.40
25 lbs. or more at 12c per lb.

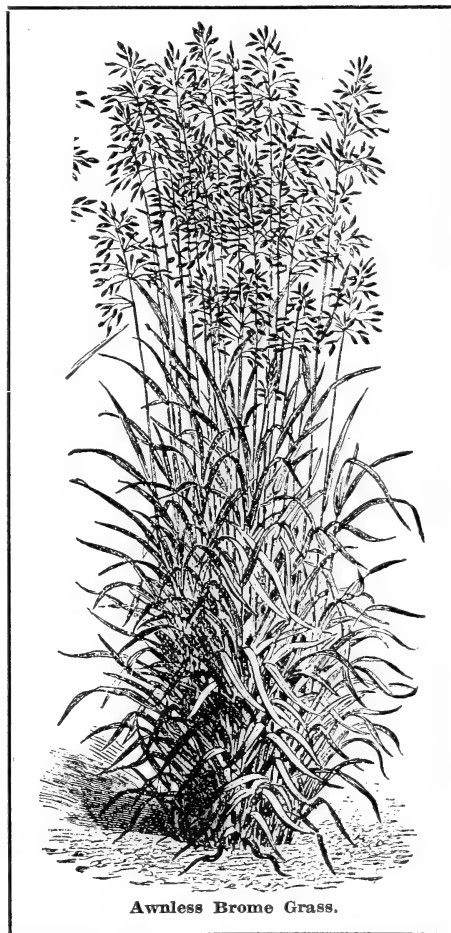
Meadow Fescue or English Blue Grass—This grass is widely grown in Eastern Kansas, chiefly as a seed crop. It will succeed on any good corn land, but thrives best on rich, heavy soil; even gumbo land will make a good crop. Sowing may be done in the spring or fall, and is usually done with a wheat drill. The ground should be well prepared by plowing some time before sowing, and allowed to settle; it should be made very fine. The seed should be put in as near the surface as possible. One bushel (24 pounds) of seed is required to sow an acre. The crop is ready for harvesting in July, and is usually cut with the self-binder and threshed from the shock. The straw makes excellent winter forage, and the aftermath furnishes good pasture the rest of the summer. It starts early in the spring and withstands drought and cold weather. **Price, by mail, postpaid, lb. 25c; by express or freight, lb. 15c, 10 lbs. \$1.00, 25 lbs or more at 9c lb.**

English Rye Grass—A fine grass for lawns or pastures. Grows very rapidly and makes a dense, even sod. Succeeds well in shady places and is adapted for woodland pastures or for sowing in the orchard. Makes an excellent lawn. Sow two bushels (24 pounds) per acre. **Price, by mail, postpaid, lb. 20c; by express or freight, lb. 10c, 10 lbs. 90c, 25 lbs. or more at 8c per lb.**

Timothy—The best known grass in the United States, and makes the standard hay of commerce. It succeeds best on rich, moist soil; satisfactory crops cannot be grown on high, dry, sandy soil. It starts slowly in the spring, and flowers about four weeks after Red Clover. It is easily injured by tramping, and for this reason is not suited for pastures. It is usually sown with Red Clover or Red Top. An excellent meadow can be made by sowing three pounds of clean Red Top and one pound of Red Clover with about twelve pounds of Timothy per acre. Fifteen pounds per acre are required when sown alone. **Price, by mail, postpaid, lb. 20c; by express or freight, lb. 10c, 10 lbs. 60c, per bu., 45 lbs., \$2.50.**

Red Top, or Herds Grass—Grows well on all soils, whether sandy, thin, dry land, or rich, heavy or wet soils; it is one of the most satisfactory grasses that can be grown. A fine pasture grass and is also well suited for meadows. It sends out shoots at the base, which take root at every joint, forming a dense, thick sod. It is not injured by tramping. Red Top is of great value for sowing in gullies or on soils which are inclined to wash from heavy rains. Sow ten pounds of clean seed per acre when sown alone. An excellent grass to sow with Timothy or Orchard Grass. **Price for fancy seed, by mail, postpaid, lb. 25c; by express or freight, lb. 15c, 10 lbs. \$1.20, 25 lbs. or more at 10c per lb.**

We handle Meyer's Reversible Hay Carrier, Track, and all equipment to complete a first-class outfit. Write for prices.



Awnless Brome Grass.



Alfalfa.

Alfalfa

with the possible exception of Red Clover, is the most valuable forage crop in cultivation. Where Alfalfa thrives there prospers the farmer. In the West it is the very foundation of cheap and profitable production of pork, mutton and dairy products. It starts very early in the spring and yieldss successive cuttings until very late in the fall. Often five cuttings in a single season are taken off, an aggregate of many tons per acre of a feed almost as rich as oil meal or wheat bran. Once a stand is obtained it lasts for ten or fifteen years, so that the first cost of the seed is a trifle by comparison and only the best quality should be used. Twenty pounds are recommended to sow an acre.

Prices: By mail, postpaid, lb. 30c; by express or freight, lb. 20c, 10 lbs. \$1.75, 20 lbs. \$3.00, bu. (60 lbs.) \$8.50. Special prices in large quantities.

WE ARE HEADQUARTERS FOR CHOICE ALFALFA.

Red Clover—The most important of all forage plants. Where Red Clover can be successfully grown it takes the lead over all other forage crops. It enriches the soil, furnishes an immense amount of grazing, large crops of excellent hay and is a profitable seed crop. It is usually sown with wheat or oats early in the spring. Sow eight to twelve pounds per acre. **Price,** my mail, postpaid, lb., 30c; by express or freight, lb. 20c, 10 lbs., \$1.50, bu. (60 lbs.) \$8.50.

Mammoth Red Clover—Grows four to six feet high. The variety best adapted to plowing under as green manure, on account of the enormous mass of tops and roots which it produces. Sow ten pounds per acre. **Price,** by mail, lb. 30c; by express or freight, lb. 20c, 10 lbs. \$1.60, bu. (60 lbs.) \$8.50.

White Clover—A dwarf, low growing sort of great value for pastures; succeeds on all soils and under all conditions. All stock fattens on it. Valuable also as a plant for bees and as a green food for poultry. Sown with Kentucky Blue Grass or English Rye Grass, it makes an excellent lawn. Sow five pounds per acre, when sown alone. **Price,** by mail, lb. 35c; by express or freight, lb. 25c, 10 lbs. \$2.25, 60 lbs. \$9.00.

Alsike or Swedish Clover—Very hardy and vigorous; does well on all soils and is usually sown with other grasses. It forms a thick undergrowth and largely increases the yield of hay. The roots take a firm hold in the ground and prevent washing. Sow six to ten pounds per acre. **Price,** by mail, postpaid, lb. 30c; by express or freight, lb. 20c, 10 lbs. \$1.75, bu. (60 lbs.) \$9.00.

See also Japanese Millet, page —

Sorghum, or Sugar Cane

Sorghum, as a hay crop, can be grown with less expense and will yield a larger crop under the most unfavorable circumstances than almost any other forage crop. It will yield many tons per acre which, when properly cured, makes an excellent feed for cattle or horses. Containing a high percentage of sugar, it is very sweet and palatable, and is preferred by stock to any other forage. If intended for hay, the seed should be sown thickly; if broadcast, about one bushel per acre, and if in drills, about three pecks of seed will be required. This will make good fine hay. Cut when the seed is in dough. When grown as a crop for seed, sow in drills three feet apart, using from three to five pounds of seed per acre. Cultivate as for corn. The seed has a ready market value, and brings remunerative prices. In sections affected by hot, dry seasons, it is one of the safest and most profitable crops that can be grown, either for forage or for seed. The stalks are also manufactured into molasses.

Cane Seed—For fodder. **Price,** by mail, postpaid, lb. 15c; by express or freight, lb. 5c, 10 lbs. 30c, 25 lbs. or more at \$1.75 per 100 lbs.

Early Amber—Popular and well known. It is the earliest variety, rich in saccharine matter, and makes a nice amber syrup and good sugar. **Price,** by mail, postpaid, lb. 15c; by express or freight, lb. 5c, 10 lbs. 35c, 25 lbs. or more at \$1.80 per 100 lbs.

Early Orange—Ten to fifteen days later than Early Amber; a strong grower and produces more syrup; an excellent sugar plant. **By mail,** postpaid, 15c; by express or freight, lb. 5c, 10 lbs. 35c, 25 lbs. or more at \$1.80 per 100 lbs.

Kaffir Corn

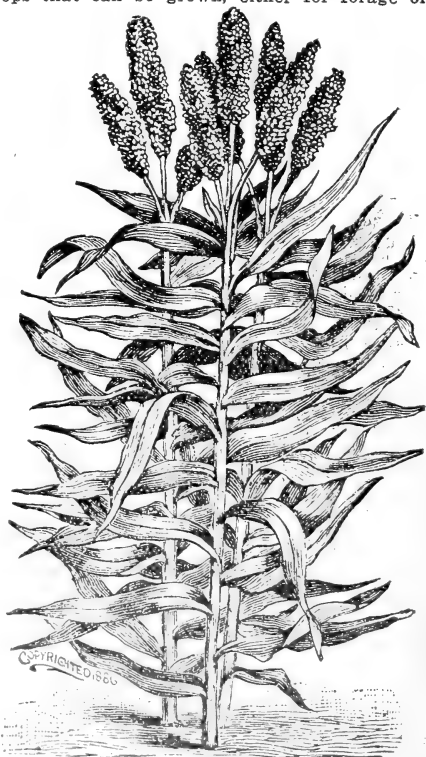
Kaffir Corn belongs to the non-saccharine group of sorghums, and in its habits of growth is very similar to the common sorghum or cane. The plant is short-jointed and leafy. It is the greatest dry weather resisting crop that can be grown in this section. When dry weather comes it does not die, but simply stops growing until rain does come, and then continues its growth. It will average a larger crop of grain than corn, and the fodder is much superior to corn fodder, as it remains green until after the seed is ripe. The grain is equal to corn for feeding, and all classes of stock eat it readily. Grinding is not necessary. A mixture of four-fifths Kaffir Corn and one-fifth Soy Beans is a perfect feed for hogs. At the Kansas Experiment Station a lot of hogs fed on Kaffir Corn alone made an average gain of 44 1-0 pounds per head in fifty days. When fed four-fifths Kaffir Corn and one-fifth Soy Beans they gained 86 6-10 pounds per head in fifty days.

For grain, the seed should be planted in rows and cultivated like corn. This will require about five pounds per acre. For fodder, one-half to two bushels should be sown, and the corn cut for hay when the seed is in the dough.

The Kansas Experiment Station, Manhattan, reports: "For the past ten years we have grown Indian Corn and Kaffir Corn side by side on the station farm, the average yield of corn being 34.5 bushels per acre, while Kaffir Corn has yielded 46 bushels per acre."

Red Kaffir Corn—**Price,** by mail, lb. 15c, 3 lbs. 40c; by express or freight, lb. 5c, 10 lbs. 25c, 25 lbs. or more at \$1.50 per 100 lbs.

White Kaffir Corn—Price same as Red.



Sorghum.

SEED CORN--Continued

Boone County White—A pure-bred white corn of very large size and high fattening and milling qualities. It is rather a late variety, maturing in from 115 to 120 days, and cannot be recommended for planting north of Kansas. For general planting throughout this state and farther south it will give highly satisfactory results in all soils and seasons. Years of scientific breeding and patient selection have developed this variety into the largest yielding white corn known, giving it the following fixed characteristics:

A very large, fat, heavy ear, tapering only slightly from butt to tip, rounding off nicely within an inch of the top; eighteen to twenty-four rows of about fifty kernels each, carried out to the full length of the ear.

Tips and butts that are exceptionally well filled out; so little waste space is there between the kernels that the entire surface of the cob is completely covered with practically a solid layer of grains one-half to three-fourths of an inch deep.

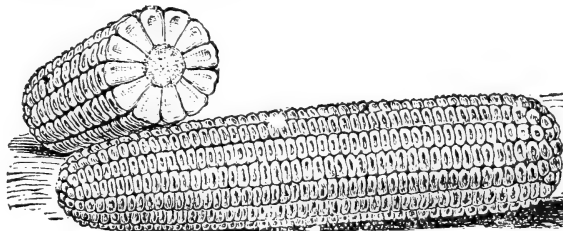
A white cob of only medium size, which, together with its depth of grain, gives it a remarkably high shelling percentage.

Kernels that are of ideal shape, creamy white color, moderately rough, with large germ.

A very strong, vigorous stalk, ten to fourteen feet high, with the percentage of weak and barren stalks reduced to the minimum.

Boone County White represents the latest improvements developed by intelligent and scientific seed corn breeding.

By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.40, 2 bu. \$2.50, 10 bu. \$11.00.

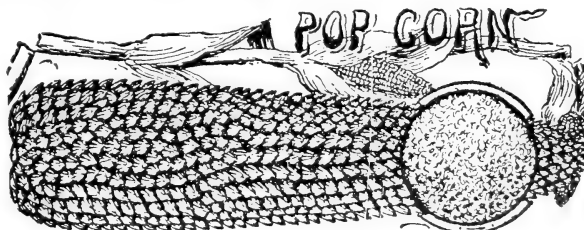


Improved Leaming.

Improved Leaming—The ears are of good size and set low down on the stalk. Usually bears two good ears to the stalk. The cob is small, the grains deep and of a bright yellow color. Is strong and stock in growth and matures very early, usually in about ninety days. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.25, 2 bu. \$2.40, 10 bu. \$10.00. Bags free.

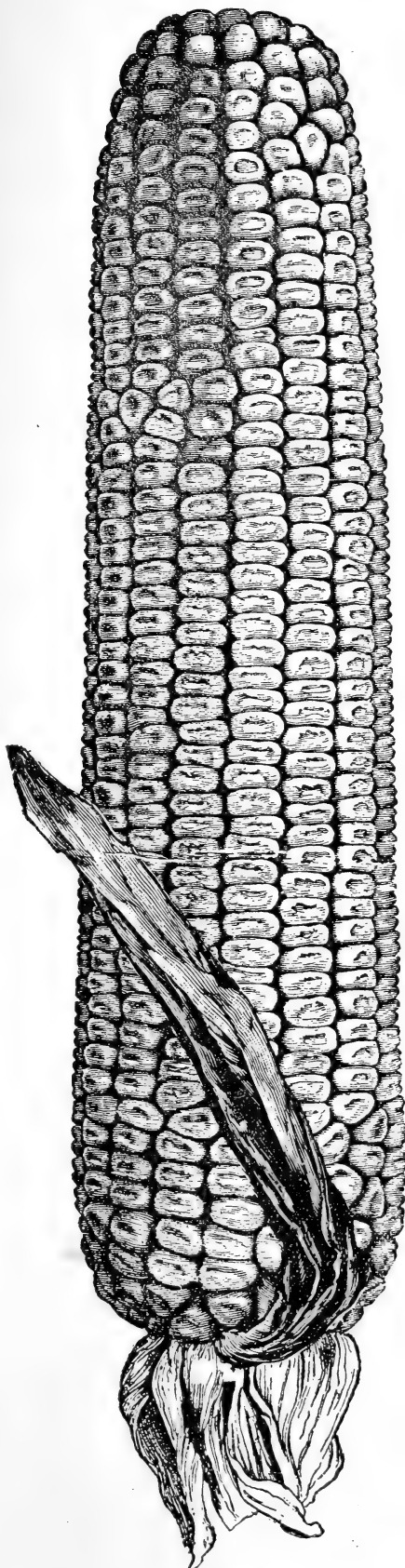
St. Charles White—A splendid variety; very popular in many sections of Missouri, Southern Illinois and throughout the South generally. A pure white corn, with red cob. It is a large main crop sort, requiring the full season to reach maturity. The ears are sixteen-rowed, nine to twelve inches in length, big, and of handsome shape. The cob is of medium size, well filled with large, almost smooth kernels. The grain has a peculiar clear and pure white color, and is eagerly sought by millers as a high grade milling corn. The stalks are strong, of medium height, with very broad leaves, yielding a large supply of excellent fodder. A record-breaking yielder, especially on rich black soils or new ground. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.40, 2 bu. \$2.50, 10 bu. \$11.00.

Extra Early Adams—The earliest white corn in cultivation. This sort is extensively planted for first early roasting ears, as it is very hardy and can be planted much earlier than any variety of the true sweet corn. The ears average about eight inches in length, with ten to twelve rows of short, broad grains. It is a fair yielder, but its greatest value lies in its extreme earliness. By mail, per lb. 20c, 3 lbs. 50c by express or freight, peck 70c, bu. \$2.50.



White Rice—The most popular sort and the best. Ears, by mail, 10c each; shelled, by mail, lb. 29c; by express or freight, lb. 10c.

Queen's Golden—A fine yellow sort; pops perfectly white and very large. Immensely productive. Ears, by mail, 10c each; shelled, by mail, lb. 20c; by express or freight, lb. 10c.



Iowa Silver Mine.

Selected Seed Corn

CAREFULLY SORTED, WELL CURED AND TESTED

Golden Beauty—For general planting in this section we know of no corn that will give better satisfaction than the big, handsome Golden Beauty. It is the largest grained and finest corn in appearance we have ever seen. The ears are of perfect shape, as shown in the cut, which was made from a photograph of an average ear. The cob is so small and the grains so large and broad that a single grain will almost cover the end of the cob when broken in half. It is of a beautiful golden yellow color, and of fine quality for grinding. It matures in about 110 days, and yields big crops. We recommend the Golden Beauty as the handsomest and largest grained corn in cultivation, and is sure to please every farmer who grows it. By mail, per lb. 30c, 3 lbs. 50c; by express or freight, per peck 40c, bu. \$1.40, 2 bu. \$2.50, 10 bu. \$12.00. Bags free.

Early Mastodon—Since its introduction, more seed of this variety has been sold than any other sort ever introduced. This, in itself, is a great recommendation for the merit of the Mastodon corn. It originated with C. S. Clark, of Huron County, Ohio, to meet a demand for a large eared, yet early corn. It has the longest grains and largest ears of any 100-day corn in cultivation. It is a remarkably strong grower and a surprising yielder. The originator claims for it that it will outyield any corn in the world. A yield of 223 bu. (shelled) on one acre is reported from Yates County, N. Y., and 171 bu. (shelled) from Pawnee County, Neb. The ears average from nine to eleven inches in length and are of handsome shape, with twenty to twenty-six rows on the cob. The grain is very long and of two shades of white and yellow. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.40, 2 bu. \$2.50, 10 bu. \$11.00. Bags free.

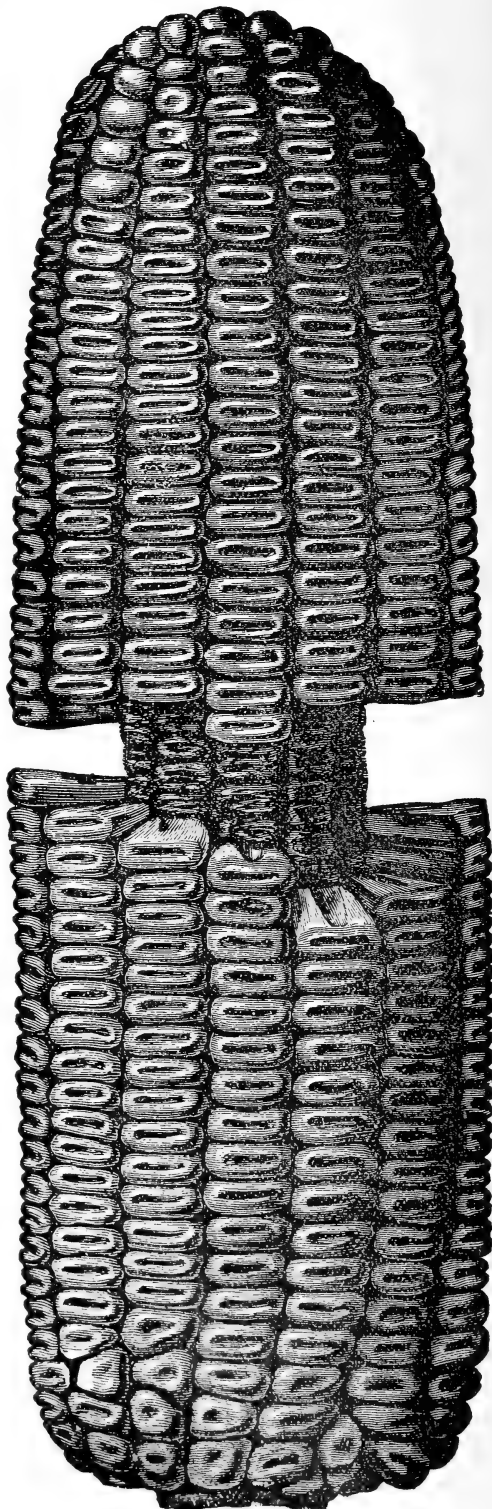
Improved Calico—An improved strain of the old Calico or Speckled corn, still a favorite large main crop sort with many farmers and feeders. The Improved Calico produces a large ear and often two good ears to the stalk, the ears running from ten to twelve inches in length and have from twelve to fourteen rows of large, deep grains. It is a strong grower, making a luxurious growth of fodder, which remains in fine condition until the corn is almost ripe. It matures in 110 to 115 days and yields enormous crops, especially on rich, heavy soil. Improved Calico is a particularly hardy sort, enduring dry weather better than most other sorts. A peculiar characteristic of this variety is its mixed appearance. The greater number of ears are striped red and yellow, or red and white, but a part of them are entirely red, others entirely white or yellow. It is especially recommended as a feeding sort. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.40, 2 bu. \$2.50, 10 bu. \$11.00. Bags free.

Iowa Silver Mine—A fine white corn, growing about seven or eight feet high. Every stalk bears a good ear—sometimes two and three. The ears are long and uniform, often ten to twelve inches in length, with usually eighteen rows of deep, pure white grain. The cob is small and well filled out at the end. It is a remarkably heavy cropper, and is sure to please all who give it a trial. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.40, 2 bu. \$2.50, 10 bu. \$11.00. Bags free.

Legal Tender—A new, large yellow corn, with handsome, heavy ears, deep grains and small cob. It matures in about 110 days and is a sure and heavy yielder. A yield of 75 to 100 bushels per acre is not unusual. This corn was awarded the premium at the Omaha Exposition a few years since, in competition with hundreds of other sorts. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.50, 2 bu. \$2.50, 10 bu. \$11.00. Bags free.

Iowa Gold Mine—This corn since its introduction a few years since has attained wide popularity. It is early, ripening only a few days later than Pride of the North. The ears are of good size and shape, and of a bright golden yellow color. The grain is very deep, the cob small. Seventy pounds of ear corn will make sixty pounds of shelled corn. By mail, per lb. 20c, 3 lbs. 50c; by express or freight, peck 40c, bu. \$1.25, 2 bu. \$2.40, 10 bu. \$10.50. Bags free.

Do not be misled with flaring catalogs and circulars on Seed Corn and pay fancy prices. Remember our Seed Corn is nubbed, tipped and tested and contracted from expert growers. Our prices are as low as reliable stocks can be sold.

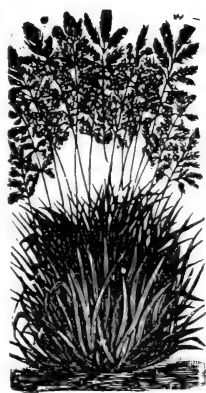


Golden Beauty.

GRASSES AND CLOVERS--Continued



Orchard Grass.



Kentucky Blue Grass.

Kentucky Blue Grass—The most widely known and best of all pasture grasses. It starts early in the spring and furnishes an immense amount of grazing throughout the season. It may look dry and brown after a hot, dry summer, but the first autumn rains start a quick, fresh growth, and in a few weeks it will be as green as ever. The seed may be sown at any time of the year except during the hot summer months; the young spears are very tender and cannot withstand the burning sun. It may be sown in fall or early spring or during the winter on a light fall of snow. Two bushels (14 lbs.) of seed per acre are required. Price, by mail, postpaid, lb. 35c; by express or freight, lb. 25c, 10 lbs. \$1.60, 25 lbs. or more at 15c per lb.

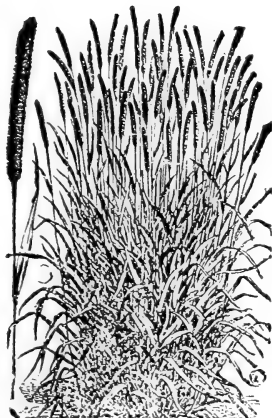
Bermuda Grass—A Southern grass of great value for pasture, hay or lawn. It succeeds on all soils, throwing out long, creeping runners, which take root at every joint, forming a tough, thick sod, binding the loosest soils, and soils damaged by washing. It grows luxuriantly during the driest weather, and will withstand the winters as far north as Central Kansas. Sow in spring, five pounds per acre. This grass is much used in the South for lawns. It forms an even growth of fine light green color. Price, by mail, postpaid, lb. \$1.00; by express or freight, lb. 90c, 10 lbs. \$7.50.

Orchard Grass—One of our best grasses for pasture or meadow. It is a hardy, vigorous grower and succeeds in the shade as well as in the sunshine. Especially valuable for sowing in orchards or woodland. It grows well on all soils except on stiff, heavy clay or wet land. It starts very early in the spring and on good soil it can be cut two or three times in one season. It is not injured by tramping; will furnish more grazing than almost any other grass. After a crop of hay is cut, it will again start rapidly and will furnish good pasture for the remainder of the season. Sow two bushels (14 lbs.) per acre when sown alone. Price, by mail, postpaid, lb. 30c; by express or freight, lb. 20c, 10 lbs. \$1.80, 25 lbs. or more at 15c per lb.

Johnson Grass—A perennial grass, resembling sorghum or corn in its growth. Withstands the winters as far north as Oklahoma and Southern Kansas. It grows about five feet high and will succeed on any soil that will grow corn. It yields an immense quantity of forage, and when properly cured is relished by all kinds of stock. When once established it is difficult to kill, and should be cut just as the flower heads appear; if allowed to mature the seeds are apt to be carried to other portions of the farm where not wanted. Sow about twenty-five pounds per acre. Price, by mail, postpaid, lb. 20c; by express or freight, lb. 10c, 10 lbs. 90c, 25 lbs. or more at 8c per lb.

Genuine Dwarf Essex Rape

The Great Pasture Plant for Sheep or Hog Pasture.



Timothy.

The value of this plant as a pasture for sheep has long been recognized in England. It is only in recent years that it has been grown to any extent in this country. Its phenomenal success during the last years as shown by its increased sales in all sections of the country, is convincing proof that it has come to stay, and as a rapid growing, succulent green food for cattle, sheep or swine, it has become as much a necessity with the progressive farmer as clover. Under favorable conditions the crop is ready for feeding six weeks after sowing, and a good crop will yield twelve tons of green food per acre, which, in nutritive value, is nearly twice that of clover. As a pasture for sheep it stands preeminent, and is rapidly revolutionizing the sheep industry of this country. For early summer grazing it should be sown about oat-seeding time, and for late summer and fall feeding it may be sown in June, July and August. It may be sown alone for a full early crop, or sown with oats, and when the oats are harvested it comes forward with great rapidity.

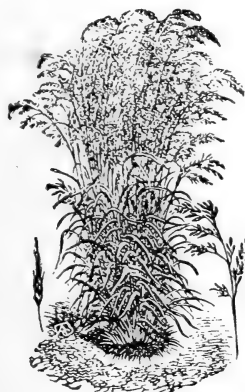
It is often sown on oat, wheat or barley stubble without plowing, and harrowed in with a light tooth harrow, in this way making an abundance of fall feed. It is also extensively sown in corn by scattering the seed ahead of the cultivator at the time of last cultivation. The corn shades and protects the young plant during its early growth, and within six or eight weeks lambs may be turned in for weaning, and makes a splendid fall feed for sheep, cattle or swine when the corn is harvested. When sown broadcast, about five pounds of seed per acre are required.

Caution—There are many different kinds of rape, and great care must be exercised to get the true biennial Dwarf Essex, which is the only variety that will give satisfactory results. Ours is the true sort, imported by us direct from reliable growers. Do not be deceived by seed offered at lower prices—it may be costly in the end.

Price, by mail, lb. 20c; by express or freight, lb. 10c, 5 lbs. 40c, 10 lbs. 75c, 25 lbs. at 7c per lb., 100 lbs. \$6.50.



Genuine Dwarf Essex Rape.



Red Top.

Meyer's Hay Tools. Write for prices and catalog.

Millet

Fancy Round-Seeded German Millet

A Quick and Sure Money Making Crop.

The farmer who grows millet for seed should plant only pure seed. There is always a ready market for the pure German Millet, when it is often difficult to dispose of mixed or hybridized millet at any price. This millet will yield from 40 to 50 bushels of seed per acre, besides an enormous amount of good fodder.

It is very easily grown, requires little labor or expense in handling, and matures a crop in such short time that it is one of the surest and quickest money making crops that can be grown.

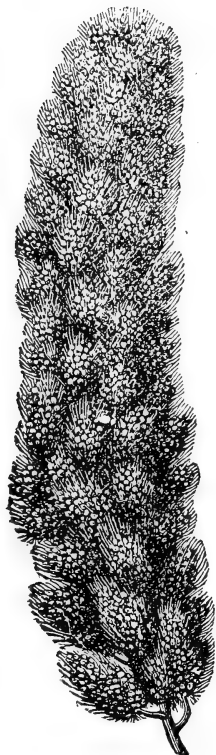
We use great care to have our stock of this pure and unmixed, and must charge a higher price than for inferior or mixed seed. **By express or freight, per peck 30c, bu. \$1.00.**

Common Millet—Per peck 25c, bu. 90c.

Siberian, also called Russian Millet—A comparatively new millet which has largely taken the place of German and Common Millet as well as Hungarian, especially in sections where the season is short. It is an extremely early sort, growing about four feet high. The broad leaves start close to the ground and continue nearly to the top of the stem; the leaves are tender and cure to a bright green, soft hay. It stands dry weather better than other millet. The yield of seed is large, often 50 bushels to the acre. **Peck 25c, bu. 90c.**

Hungarian Millet—Peck 35c, bu. \$1.00.

Prices subject to market changes.



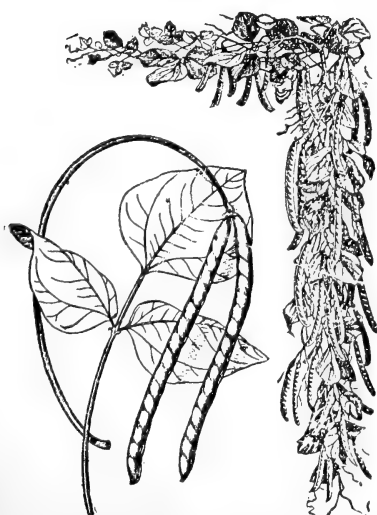
Cow Peas

Canada Field Peas

For dairy cows and hogs they are equal to corn, and six weeks earlier. They should be sown early in April with oats, using two bushels of oats and two bushels of the peas per acre. The peas should be sown first and plowed under to a depth of about four inches, then sow and harrow in the oats. They will be ready to cut in July. As a fertilizer they come next to clover, and will grow on land that will not produce clover. **Peck 65c, bu. \$2.00, by express or freight.**

Southern Cow Peas

Field Peas are largely grown in the southern states both as a hay crop and as a fertilizer, in which respect they are of great value. The peas may be sown in corn at the time of last cultivation, or after a crop of early potatoes. They may be sown broadcast at the rate of one and one-half bushels per acre, or they can be planted in rows about three feet apart, with a corn planter. This will require only one-half bushel of seed per acre. The cow peas by their rapid, rank growth, keep down weeds and put soil in good, friable condition for the next year's



crop, increasing the fertility of the soil to a remarkable extent. The vines furnish an excellent green food for milch cows until frost, or they may be cut and cured for hay; or a very profitable way to dispose of the crop is to turn hogs into the field at the time that the first peas are ripening. They readily eat the foliage and well filled pods, and thrive amazingly. Or the entire crop may be plowed under as a green manure.

New Era—An early variety, probably the best sort for the North and West. Can be sown after wheat is taken off the ground and still produce a good crop of forage or peas, besides increasing the fertility of the soil for the succeeding crop and leaving the ground mellow and clean from weeds. **Prices: By mail, postpaid, lb. 20c, 2 lbs. 30c; by express or freight, qt. 5c, peck 60c, bu. (60 lbs.) \$1.85.**

Whip-Poor-Will—A favorite in Oklahoma, Texas and the South generally. A vigorous, healthy grower, yielding abundant crops of forage and grain. **Prices: By mail, postpaid, lb. 20c, 2 lbs. 30c; by express or freight, qt. 5c, peck 60c, bu. (60 lbs.) \$2.00.**

Japanese Buckwheat

The best sort for the West. It matures seed earlier, resists drought better, and is more vigorous and hardy than the old sorts. The grains are almost as large again as the common sort, and the yield is much larger. It should be sown from the middle of June to middle of July, broadcast, at the rate of one-half bushel per acre.

This sort will yield, on an average, about 30 bushels per acre. It quickly gathers moisture when left standing in the field, and for this reason should be threshed as soon as dry. Unequaled as a plant for bees.

By express or freight, peck 40c, bu. \$1.25.

Russian Speltz or Emmer

A Valuable Grain from Russia.

The most promising feeding grain for the West that has been brought to our notice since the introduction of Kaffir Corn. It is not a new grain by any means; in Russia it has been in cultivation for ages and is one of the standard cereals.

The plant resembles barley in appearance and growth, but the heads and grains are very much larger. When threshed the grain resembles barley, and when the husks are removed it is similar to rye.

Its hardy, vigorous nature enables it to resist drought, wet weather, heat and frost to a remarkable degree; in fact, it seems to make a crop under almost any condition of soil or climate. It yields more than oats, wheat or barley, making a crop of 40 to 80 bushels of grain and four to six tons of straw or hay per acre.

All stock is very fond of both the hay and straw. It is well adapted as a feed for milch cows, especially valuable for feeding cattle and hogs, and for horses it is equal to oats.

It requires no special method of cultivation other than that given wheat or barley, but should be sown very early in the spring. This can safely be done, as it is not easily injured by frost. Two and one-half bushels in drills is recommended as the proper quantity of seed per acre.

The U. S. Department of Agriculture, in a bulletin devoted to Speltz or Emmer, recommends it highly. The bulletin states: "The extremely variable climatic conditions in some of our Western states have made it desirable to give particular attention to crops resistant, especially to drought and cold. Among such crops Emmer (Speltz) holds high rank and should become one of the prominent crops for stock feeding."

Price of re-cleaned seed: Per. bu. of 40 lbs. 80c, 5 bu. for \$3.75, 10 bu. for \$7.00.

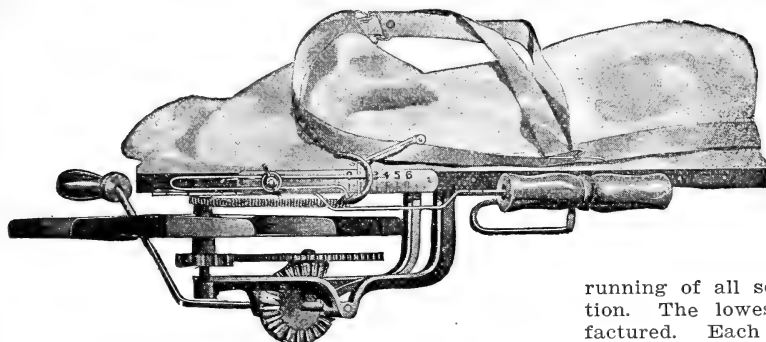




Seed Oats

INCREASED CROPS. CHANGE YOUR SEED.

Red Texas	75c. bu.	Seed Rye	85c. bu.
Lincoln	85c. bu.	Beardless Barley	85c. bu.



Columbia Broadcast Seeder

A Practical Machine for Sowing Correctly All Varieties of Farm Seeds.

Perfect in distribution. Mechanically constructed. Neatest and most simple. Has automatic cut-off and regulator. The lightest running of all seed sowers. Strongest in construction. The lowest priced standard machine manufactured. Each machine packed separately. The

many advantages of this seeder should appeal to every shrewd buyer.

Price, each\$1.25

Table of Weights and Quantities of Seeds Sown to the Acre

Preserve this. You will find it convenient for reference.

VARIETY	Weight Per Bu.	Quantity Per Acre	VARIETY	Weight Per Bu.	Quantity Per Acre
Barley, broadcast	48 lbs.	2 to 2½ bu.	Lettuce, in rows 2½ feet.....	2 lbs.	2 lbs.
Beans, dwarf, in drills	60 lbs.	1 bu.	Melon, Musk, in hills	2 to 3 lbs.	2 to 3 lbs.
Beets, in drills	46 lbs.	5 to 6 lbs.	Melon, Water, in hills	4 to 5 lbs.	4 to 5 lbs.
Broom Corn, in drills	46 lbs.	12 lbs.	Millet, broadcast	48 lbs.	¾ bu.
Buckwheat, broadcast	52 lbs.	½ to ¾ bu.	Oats, broadcast	32 lbs.	2 to 3 bu.
Cabbage, in beds to transplant.....	¼ lb.	¼ lb.	Onions, in drills	5 to 6 lbs.	5 to 6 lbs.
Carrots, in drills	2 to 3 lbs.	2 to 3 lbs.	Onions, for sets, in drills	60 to 75 lbs.	8 to 15 bu.
Castor Beans	46 lbs.	4 to 5 lbs.	Onion Sets, in rows	8 to 15 bu.	4 to 6 lbs.
Cauliflower	1 oz. for 1,000 plants.	1 oz. for 2,000 plants.	Parsnip, in drills	60 lbs.	2 bu.
Celery	1 oz. for 2,000 plants.	60 lbs.	Peas, in drills	56 lbs.	2 to 2½ bu.
Clover, red, alone	60 lbs.	8 to 12 lbs.	Peas, wrinkled	60 lbs.	2½ bu.
Clover, white, alone	60 lbs.	5 to 8 lbs.	Peas, broadcast	56 lbs.	3 to 4 lbs.
Clover, Alsike, alone	60 lbs.	6 to 8 lbs.	Pop Corn, hills	60 lbs.	8 to 10 bu.
Clover, Lucerne or Alfalfa	60 lbs.	15 to 20 lbs.	Potato (cut tuber)	60 lbs.	4 to 6 lbs.
Corn, field, in hills	56 lbs.	6 to 8 qts.	Pumpkin, in hills	8 to 10 lbs.	8 to 10 lbs.
Corn, Sweet	measured	6 to 8 qts.	Radish, in drills	5 lbs.	5 lbs.
Corn, for soiling	56 lbs.	2 bu.	Rape, Dwarf Essex, broadcast,	60 lbs.	3 lbs.
Cow Peas, broadcast	60 lbs.	2 to 3 bu.	5 lbs., drilled	60 lbs.	2 lbs.
Cucumber, in hills	2 lbs.	2 lbs.	Rye, broadcast	56 lbs.	1½ to 2 bu.
Grass, Kentucky Blue (solid seed)	14 lbs.	2 bu.	Sorghum (¾ to 1 bushel fodder),	50 lbs.	6 to 8 lbs.
Grass, Ky. Blue, for lawn (solid seed)	1 lbs. for 15x15 ft. sq.	56 lbs.	in drills	50 lbs.	3 to 4 lbs.
Flax, broadcast	22 lbs.	2 bu.	Squash	45 lbs.	1 pk.
Grass, Orchard	14 lbs.	2 bu.	Timothy	45 lbs.	1 pk.
Grass, English Rye	14 lbs.	2 bu.	Tomato, to transplant	14 lbs.	14 lbs.
Grass, Bromus Inermis	14 lbs.	15 to 20 lbs.	Turnip, in drills	60 lbs.	2 to 3 lbs.
Grass, Red Top (in chaff)	14 lbs.	3 bu.	Vetches, broadcast	60 lbs.	2 to 3 bu.
Grass, Red Top (solid seed)	42 lbs.	8 to 20 lbs.	Wheat, broadcast	60 lbs.	1½ bu.
Grass, Timothy	45 lbs.	10 to 12 lbs.	Clover, { together }	4 lbs.	Clover
Grass, Mixed Lawn	14 lbs.	4 bu.	Timothy, { one acre }	10 lbs.	Timothy
Kaffir Corn	50 lbs.	1½ bu.	Red Top, { for }	2 lbs.	Solid Red Top

We give all Field Seed orders our special attention. Orders always shipped same day received. We trace shipments to destination, saving loss of time. Our seeds are thoroughly cleaned of all foul weed seed. We guarantee you value for your money. All prices f. o. b. St. Joseph.

MISSOURI VALLEY SEED CO.,

ST. JOSEPH, MO.,

Horticultural Department

Some Facts About Spraying and Spray Pumps

The season of 1906 will long be remembered as one which very forcibly demonstrated the necessity of spraying apple trees. Early in the season there was little difference, apparently, between sprayed and unsprayed orchards. Even as late as August 1 it seemed as though orchards not sprayed had as much good fruit as orchards which had been sprayed. There was very little evidence of fungi in any of the orchards of the Middle West up to that time, and there were few worms; nearly the entire crop of apples seemed to be sound and perfect.

After August 1, however, the difference between sprayed and unsprayed fruit became apparent. All over the Middle West unsprayed fruit dropped badly, and the ravages of the late brood of codling moth were something terrible to behold. Orchards which a few weeks before had promised to yield 90 per cent No. 1 fruit had scarcely 50 per cent of sound apples. Then the difference between sprayed and unsprayed orchards was very noticeable.

In Southern Missouri, Southern Illinois, Southern Kansas and in Arkansas there was another difference: Sprayed orchards were comparatively free from bitter rot, and where the disease made its appearance it was held in check. In unsprayed orchards, however, the disease caused great damage—so much so that in one experiment in Southern Missouri scarcely a sound apple was left on the trees which had not been sprayed.

All this means that orchardists must spray. And they must use good pumps and good chemicals, too. Of late years the up-to-date orchardists have realized there is a difference in pumps. Several things must be considered in the purchase of a spray pump: (1) The pump must be capable of producing the greatest power with minimum of labor to operate; (2) it must have an agitator which will keep the contents of the barrel or tank violently agitated; and (3) a nozzle must be used which will break the mixture up into a fine mist.

When an apple tree is sprayed, the mixture must be forced into the tree, consequently great power is necessary. The power is needed also to produce the fine mist so necessary for effective work. The contents of the barrel must be kept well agitated, else the first trees sprayed from a barrel of the mixture will receive an application of clear water, and the last trees will be given an application so strong that the foliage is burned.

Every year we hear of people who have sprayed, and yet have failed in their efforts to control the insects and diseases. These persons say it is useless to spray. And yet other persons have remarkable success in their fight against insects and fungi by using the spray pump persistently. What's the difference between these persons?

As a rule, failure in spraying is due to one or more of the following causes: (1) Mixtures are not properly made; (2) the wrong formula is used for the insect; (3) spraying is not done at the proper time; (4) the work is not thoroughly done.

The making of mixtures is treated elsewhere, also the time of application, and the insects to be sprayed. But just here we want to say a few words about the method of application.

We have said that a fine mist is necessary to do the best work. You can easily prove this by spraying a pane of glass with a fine mist and then with coarse drops; the former will adhere to the glass, while the latter will run off. This is true of the foliage of trees as well. If one is spraying for canker worms or codling moth with an arsenical mixture, remember that every leaf in the one case and every apple in the other must be coated with the poison; otherwise the insect will feed at will without eating any of the poison. And if one is using kerosene emulsion to kill plant lice, remember that these insects are only killed when the mixture comes in contact with them; it will not suffice to coat the tree with the mixture—the insects must be actually touched with the preparation. And if one is using Bordeaux mixture against fungous diseases, remember that the application must be made before the disease gets a foothold—an ounce of prevention here is worth more than a pound of cure.

If these instructions are borne in mind, then there will be less complaint of effective spraying. Remember that many of the best growers in the country actually hold their enemies in check by spraying persistently and intelligently, and you can do the same thing. And who can doubt that it will pay, when perfect fruit is in such demand as at this time? It is the wormy, inferior fruit which is a drug on the market—the good apples are selling at good prices.

Directions For Spraying Apple Trees

Most of the work of spraying is confined to fighting enemies of the apple. The pests divide themselves into three classes: Fungous diseases, such as apple scab; insects which take their food by chewing, such as canker worms, and insects which take their food by sucking the juices of the plant, such as plant lice. The remedies to be applied, therefore, are to be adjusted to the particular pest to be fought.

For apple scab and all other fungous diseases the standard remedy is Bordeaux mixture, made of six pounds of copper sulphate (blue vitriol), four pounds of good stone lime, and fifty gallons of water. This is best made by dissolving the copper sulphate in half the quantity of water; put the copper sulphate in a coarse sack and suspend just below the surface of the water, and it will dissolve more readily. Slake the lime with enough water to prevent its burning, and when thoroughly slaked add the other twenty-five gallons of water. Then you will have in one vessel twenty-five gallons of copper sulphate solution, and in another twenty-five gallons of "milk of lime." These two solutions should be poured at same time into the spray tank, so that the streams of the two mixtures will unite as they enter the tank. The mixtures should be strained, so that no material will enter the tank which will clog the nozzle.

To control apple scab, spray the trees just as the leaf buds are unfolding, and again as the last petals are falling; then twice more at intervals of about ten days. At the last three sprayings an arsenical should be added, for insects which chew. This is explained in another paragraph. (

If bitter rot is threatened, as is usually the case in Southern Missouri and latitudes south of there, several applications of Bordeaux mixture should be made, beginning about the middle of July. Usually bitter rot is not found in the latitude north of the central part of Missouri.

The two most important insects belonging to the class which take their food by chewing are canker worms and codling moth, the former attacking the foliage and the latter the fruit. The remedy for both is to use an arsenical, such as arsenate of lead, paris green, etc.

Canker worms appear just as the young leaves make their appearance; they are very destructive and will eat all the leaves off a tree in a few days. They are hard to kill when full grown, and therefore one should spray the trees as soon as they make their appearance, thoroughly coating the foliage with the poison. This application will occur at about the time the first application of Bordeaux mixture for apple scab should be made, and the two mixtures are combined. If paris green is used, make the mixture as follows: Four pounds of copper sulphate, four pounds of lime, four ounces of paris green, to forty gallons of water. This mixture will be for canker worms and apple scab. Arsenate of lead, however, is perhaps preferable to paris green, and is more generally used by the most progressive growers. If it is to be used, make the regular Bordeaux mixture, and add four pounds of arsenate of lead to 100 gallons of the mixture. No additional lime will be needed.

This combined mixture is really the one which is used throughout the season by most growers, for the same ingredients will hold the codling moth in check. The first spraying for codling moth, the larva of which is the worm found at the core of apples, is made just as the petals of the blossoms are falling. The small worm usually enters the young apple through the bloom end, and the object of the first spraying is to lodge a portion of the poison in the calyx of the apple, so the worm will be poisoned as it attempts to eat its way into the core. It is important, therefore, that this application be made before the calyx end of the apple closes and the bloom end of the young apple is turned down.

Subsequent sprayings for this insect should be made at intervals of about ten days, until four or five applications have been made, and some growers even spray until a later date. If the first applications have been well made, however, there will be less danger from the late broods of the codling moth.

The foregoing is the standard system of fighting insects and fungi, for most of the pests will be caught by either the regular Bordeaux mixture or the poison which has been added.

The third pest of the apple orchard is the class of sucking insects, the most common of which is the common aphid. This insect cannot be killed by paris green or any other arsenical; it must be killed by an insecticide which kills by contact. The standard remedy is kerosene emulsion, directions for making which are given elsewhere. In using this mixture one must bear in mind that only those insects touched by the mixture will be killed. This class of insects puncture the tissues of the plant with their beaks and suck the sap; therefore, any mixture placed on the foliage or branches will not harm them, for they get their food supply from the inside.

If one has San Jose scale in his orchard, write the experiment station of your state. It is a hard insect to fight, and you will need full instructions. The advice here given, however, will help to hold in check the pests usually found in apple orchards, and if directions are carefully followed success should follow.

Formulas

PARIS GREEN.

Paris green 1 pound
Water 150 to 300 gallons

If this mixture is to be used upon fruit trees, 1 pound of lime should be added, and repeated applications will injure most foliage unless the lime is used. **Paris Green and Bordeaux Mixture can be applied together with perfect safety.** Use at the rate of 4 ounces of the arsenites to 50 gallons of the mixture. The action of neither is weakened, and the Paris green loses all caustic properties. For insects which chew.

LONDON PURPLE.

This is used in the same proportion as Paris green, but as it is more caustic it should be applied with two or three times its weight of lime, or with the Bordeaux mixture. The composition of London purple is variable, and unless good reasons exist for supposing that it contains as much arsenic as Paris green, use the latter poison. Do not use London purple on peach or plum trees unless considerable lime is added. For insects which chew.

AMMONICAL COPPER CARBONATE.

Copper carbonate 1 ounce
Ammonia enough to dissolve the copper.
Water 9 gallons

Before making the solution, the ammonia should be prepared as follows:

Use 26 degrees ammonia, and dilute with 7 to 8 volumes of water. Then gradually add the necessary amount to the copper carbonate until all is dissolved. It is best treated in large bottles, and in them it will keep indefinitely. Dilute as required. For same purposes as the Bordeaux mixture.

COPPER SULPHATE SOLUTION.

Copper sulphate 1 pound
Water 15 gallons
Dissolve the copper sulphate in the water, when it is ready for use. **This should never be applied to foliage, but must be used before the buds break.** For peaches and nectarines use 25 gallons of water. For fungous diseases.

NORMAL OR 1-6 PER CENT BORDEAUX MIXTURE.

Copper sulphate (blue vitriol) 6 pounds
Fresh lime (unslaked) 4 pounds
Water 50 gallons
Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel containing 5 or 6 gallons of water. Use an **earthen or wooden vessel**. After the copper sulphate is dissolved, dilute with water to 25 gallons. Slake the lime and add 25 gallons of water. Mix the two and keep stirred while using. If the mixture is to be used on peach foliage it is advisable to add two pounds of lime in the above formula. For rots, moulds, mildews, and all fungous diseases.

BORDEAUX MIXTURE.

Paris green 5 ounces
Copper sulphate 5 pounds
Lime 5 pounds
Water 50 gallons
Dissolve the copper sulphate by pouring on hot water so that it is just covered by the water. Use an **earthen or wooden vessel**. Add the lime and enough water to make 50 gallons. It is then ready for immediate use. If the mixture is to be used on peach foliage it is advisable to add two pounds of lime in the above formula. When applied to such plants as carnations or cabbages it will adhere much better if about a pound of hard soap be dissolved in hot water and added to the mixture. For rots, moulds, mildews and all fungous diseases.

HELLEBORE.

Fresh white hellebore 1 ounce
Water 3 gallons
Apply when thoroughly mixed. This poison is not so energetic as the arsenites, and may be used a short time before the sprayed portions mature. For insects which chew.

KEROSENE EMULSION.

Hard soap ½ pound
Boiling water 1 gallon
Kerosene 2 gallons
Dissolve the soap in the water, add the kerosene and churn with a pump for 5 to 10 minutes. Use strong emulsion for all scale insects. For such insects as plant lice, mealy bugs, red spiders, thrips, weaker preparation will prove effective. Cabbage worms, currant worms and all insects which have soft bodies, can also be successfully treated. It is advisable to make the emulsion shortly before it is used.

ARSENIC—SAL SODA SOLUTION.

A Substitute for Paris Green.

White arsenic 2 pounds
Sal soda 6 pounds
Rain water 2 gallons
Boil about 30 minutes, or until clear, then use 1½ pint to 40 gallons of water, adding 3 pounds of fresh lime.
Always label the stock solution "**Poison,**" and put it out of the way of children.

Spraying Chemicals

We are prepared to furnish Strictly Pure Chemicals for Spraying. One of the chief things to be considered in Spraying is to know that you have Good, Reliable Chemicals. We offer them at just as low a price as they can be consistently sold for. Prices include free package and delivery on cars St. Joseph, Mo. —Missouri Valley Seed Co., Horticultural Supply Department.

Note prices on chemicals subject to market changes. We will always fill orders at lowest market price on day we receive order. If you will inquire of your local druggist you will find our prices are right, as we buy in large quantities.

SULPHATE OF COPPER—LUMP.

Full barrels, 425 pounds	Per lb.,	8¼c
100 pound lots	Per lb.,	8¾c
50 pound lots	Per lb.,	9¼c
25 pound lots	Per lb.,	9½c
Less than 25 pounds	Per lb.,	10 c

SULPHATE OF COPPER— POWDER. 4c advance on Lump prices. PARIS GREEN.

Full kegs, 400 pounds	Per lb.,	27c
Full 100-lb. kegs	Per lb.,	28c
Full 56-lb. wooden kit	Per lb.,	29c
Full 28-lb. wooden kit	Per lb.,	30c
Full 14-lb. wooden kit	Per lb.,	31c
1-lb. paper boxes	Per lb.,	33c
½-lb. paper boxes	Per lb.,	35c
¼-lb. paper boxes	Per lb.,	40c

LONDON PURPLE.

Full casks, 300 pounds	Per lb.,	12 c
Full kegs, 100 pounds	Per lb.,	12¾c
Full drums, 50 pounds	Per lb.,	13 c
Tin cans, 10 pounds	Per lb.,	15 c
Less than 10 pounds	Per lb.,	16 c
Paper boxes, 1 pound	Per lb.,	18c

HELLEBORE POWDER.

25 pounds and over	Per lb.,	16c
Less than 25 pounds	Per lb.,	17c

WHITE ARSENIC.

Full casks, 450 pounds	Per lb.,	10 c
100 pounds	Per lb.,	12 c
25 to 50 pounds	Per lb.,	13½c
Less than 25 pounds	Per lb.,	15 c

SAL SODA.

Full barrel, 350 pounds	Per 100 lbs.,	\$1.45
Kegs, 100 pounds	Per 100 lbs.,	1.75
Smaller quantities	Per lb.,	.02

WHALE OIL SOAP.

50 pounds and over	Per lb.,	10½c
Less than 50 pounds	Per lb.,	12½c

LEGGETT'S DRY BORDEAUX MIXTURE AND PARIS GREEN COMPOUND.

1 pound boxes	Each	\$0.20
6 boxes for	Per	1.00
36 boxes for	Per	5.75
48 boxes (full case) for	Per	7.75
In bulk, less than 100 pounds	Per	16c
In bulk, over 100 pounds	Per	15c

LEGGETT'S DRY BORDEAUX MIXTURE WITHOUT PARIS GREEN.

1 pound paper boxes	Each	\$0.15
7 boxes for	Per	1.00
36 boxes for	Per	4.75
48 boxes (full case) for	Per	6.50

SULPHUR—FLOWER.

Full barrel, 175 pounds	Per lb.,	3¼c
100-pound bag lots	Per lb.,	3½c
50-pound box lot	Per lb.,	4 c
25-pound box lot	Per lb.,	4½c
Smaller quantities	Per lb.,	5 c

TOBACCO DUST.

Less than 100 pounds	Per cwt.,	\$2.75
Over 100 pounds	Per cwt.,	2.25
500 pounds and over	Per cwt.,	2.00

Good fresh Lime at lowest market price.

Write for Special Prices on Large Quantities.

Order Early

A SUGGESTION TO OUR CUSTOMERS.

We receive hundreds of inquiries for prices, etc., on Arsenate of Lead and other Insecticides, when it seems the writer forgets the matter until ready to spray. As we are usually snowed up with orders for Spraying Chemicals in April and May, and oftentimes we are entirely sold out, and we are obliged to hold orders for two or three weeks, as it takes this time to get a shipment from the factory. If you will favor us with your order early, it will put us in a position to make prompt shipment.

"Target Brand Insecticides"

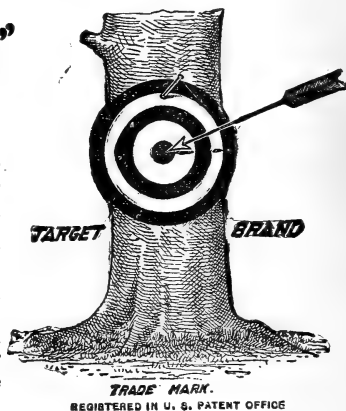
Arsenate of Lead

(In Paste Form.)



"Target Brand" Arsenate of Lead is the safest, most valuable, and most effective mineral insecticide for leaf-eating insects yet discovered. Every year the Codling Moth damages the fruit crops of the United States to the extent of thirty or forty million dollars. "Target Brand" Arsenate of Lead will stop it. It will never scorch, burn nor injure the most delicate foliage. Its principal use is to kill the Codling Moth, and it is easily applied with Bordeaux. 2 pounds being sufficient for 50 gallons. It completely takes the place of Paris Green, London Purple, etc.

"Target Brand" Arsenate of Lead sticks to the foliage to which it is applied throughout the season, no matter how frequently rains occur. No other insecticide discovered possesses its adhesive qualities. It is put up in cans and kegs, tightly sealed, with explicit directions on each package.



PRICES.

1-lb. can, 25c; 2-lb. can, 50c; 5-lb. can, \$1.00; 10-lb. can, \$1.80; 20 lbs., \$3.50; 50 lbs., \$8.00; 100. lbs., \$15.00.
1 pound dilutes to 25 gallons of water.

Scale Destroyer

The Best Remedy for Controlling the San Jose Scale



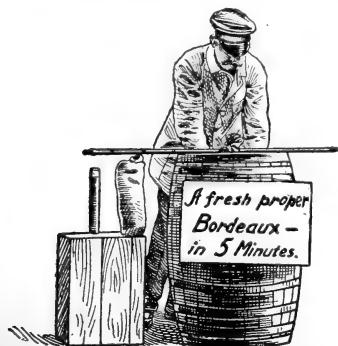
This preparation kills scales, larvae, insect eggs and all kinds of insects. It contains about 85 per cent of mineral oil, which is easily mixed with water. When diluted with 20 parts of water, it is strong enough to be fatal to insect life, yet harmless to buds, bark and the tree. It can be diluted in cold or warm water, and represents the cheapest, easiest to prepare, and the most reliable spray material.

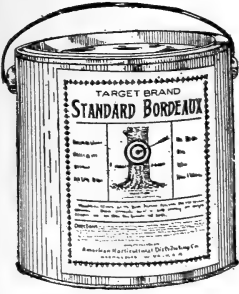
When you realize the comparison between Lime-Sulphur Wash and "Target Brand" Scale Destroyer, the latter is by far in advance. It has none of the many disadvantages of the Lime-Sulphur Wash. For example, drop one particle of oil on a piece of paper and watch the spreading effect, which covers a great many times its original size, while with the other mixture one drop remains the same as when applied, therefore the oil treatment covers more surface with less solution, with effective results. Then the suffering of men, harness, and the wear and tear on spraying apparatus, etc., to say nothing about it being practically impossible to succeed in making up uniform compounds in Lime-Sulphur Wash.

DIRECTIONS—Dilute 1 gallon to 20 gallons of water for winter treatment, 1 to 25 for fall treatment, and 1 to 40 for summer treatment.

Target Brand Quick Bordeaux

This is the only good, perfect, and sure Bordeaux made, either manufactured or at home. The reason for this statement is that in order to have a good and perfect Bordeaux, it must first of all be fresh, and in the second place, the Lime and Copper Sulphate must be brought in contact with water simultaneously, and third, that both the Lime and Copper Sulphate contained in this mixture are the best obtainable. The Lime is a special process—one made for this purpose. Directions on each label. 6-lb. package (making 30 gals. liquid), 45c each; 10-lb. packages (making 50 gals.) 70c each.





Standard Bordeaux Mixture

CONCENTRATED GOVERNMENT FORMULA IN PULP FORM.

Bordeaux Mixture is highly recommended for all Tree Diseases. As manufactured in our concentrated form, it saves trouble and labor, and is the best spray of its kind on the market.

Directions—For plums, cherries, and peaches, take one gallon to fifty gallons of water. For vegetables, potatoes, apples and pears, take two gallons to fifty gallons of water. Stir the pulp thoroughly, then mix with water while stirring, and continue to add the water until the proper quantity is mixed. By following these directions, you will have a spray which represents exactly the home-made Bordeaux in strength, appearance and properties, and will not clog the most delicate nozzle, or corrode the spray pump.

Prices: 1 gal., \$1.00; 2 gal., \$2.00; 5 gal., \$4.50; 10 gal., \$8.00.



Potato Scab Destroyer

In order to successfully control the Potato Scab the seed potato must be treated previous to planting. Our Anti-Potato Scab Liquid, which is non-poisonous, represents the best material for this purpose.

Mix 1 pint of our "Anti-Potato Scab Liquid" with 15 gallons of water, soak the seed potatoes two hours in prepared liquid, then take the potatoes out and allow them to dry well in the air before cutting for planting. This will insure the potatoes from the scab.

Directions—Dilute 1 pint with 15 gallons of water, which is sufficient quantity for 20 bushels of seed potatoes.

Price—50c per pint, 12 pints for \$5.50.



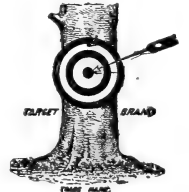
REG. U. S. PAT. OFF.

The disposition of weeds has always been to the person having this end of the gardening in hand a source of continual worry and work—"Target Brand" Weed Killer has removed entirely this dread. We offer a most effective solution of high grade chemicals, combined by secret process. The dilution is 1 to 50 parts of water, so easily made that a boy or child can attend to it.

After careful experimenting along lines which have been to make the best article of this kind, we can recommend with entire confidence a remedy that not only reduces the amount of labor, but does it at about one-tenth the cost. A gallon diluted is sufficient to cover a space of 100 to 150 sq. yards, or a space 450x450 feet. Application is best made with a watering can to insure uniform distribution, the most advisable time being after a rain, which is when weeds start to sprout and grow. "Target Brand" Weed Killer effectively destroys the roots as well as the top growth, and single applications last almost an entire season.

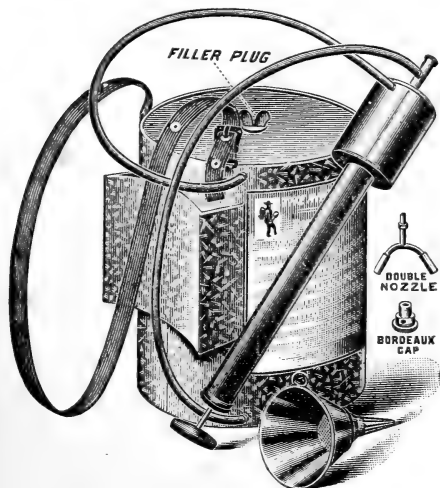
At the low price which it is sold for, no estate manager, cemetery or park superintendent can afford to be without it.

We guarantee every can to do the work or money refunded. Full directions for use on every container.



REG. U. S. PAT. OFF.

PRICES		Makes Dilution	Ready to Apply
\$ 0.40	per quart	12½ gallons	
.65	per ½ gallon	25 "	
1.00	per gallon	50 "	
4.00	per 5-gallon can	250 "	
7.50	per 10-gallon can	500 "	
18.75	per 25-gallon can	1250 "	
35.00	per 50-gallon barrel	2500 "	



A NEW DISCOVERY

The Most Important Detail of the NEW BRANDT SPRAYER is the Device for Pumping the Air into the Tank While Walking, a Feature Just Discovered and is Found in No Other Sprayer.

This device enables the operator to control the pressure at will. There being no waste of time by stopping to pump it ahead, and always gives a steady spray. This construction is formed in two hose. One discharging the air from air reservoir to the tank, while the other carries the solution to the nozzle. This also forms an AUTOMATIC AGITATOR, which together with the motion of the machine, keeps the solution well mixed.

One of the greatest troubles with all compressed air sprayers is the necessity of pumping them ahead before any work can be accomplished, which makes the pressure too high at the beginning and too low towards the end. The result is an unsteady spray. This fault has now been overcome, which will be greatly appreciated by all users of sprayers.

The nozzles in New Brandt Sprayer will save the cost of sprayer in a short time, producing the finest spray obtainable, which covers a large patch with a small solution. The fact is known that other nozzles will lack a spray in center. The Brandt nozzles being connected with the automatic controlling device, at tube connecting with the solution in nozzle cap, discharges a sufficient amount of air to draw the spray in center as well as circumference, making it equally dense, which covers the plant instantly, by which faster and better work is produced. The New Brandt Sprayer is sent out with a single nozzle, but, if desired, can also be secured with a double, at a slight extra cost.

A Double Nozzle can be attached to the air reservoir, by removing the single nozzle. The variation between the rows being regulated by raising or lowering the pump. Price, \$6.50.



The Myers O. K. Spray Pump

For Hot, Cold or Any Kind of Mixture. Mechanical Agitator, Solid Brass Ram Plunger, Ground Bevel Valve and Seat.

Figs. 655 and 1150 illustrate the new Myers O. K. Spray Pump, adapted to be used in connection with an ordinary barrel. One of the special features of this pump is a clamping device, by means of which it is attached to the top of the barrel. It will be noticed that this arrangement can be adjusted to suit any barrel, regardless of the height or width.

The cylinder is what is known as a ram plunger, made of a solid brass tube with a closed end, which passes through a circular hemp packing, which adapts it for pumping hot, cold or any kind of mixture. The packing gland is adjusted by means of two heavy bolts, with which all wear can readily be taken up. The valve and seat are made of brass, ground in a bevel shape.

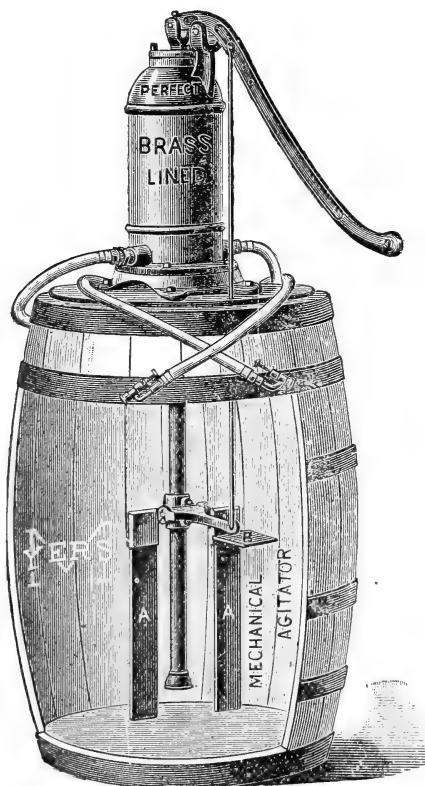
Another special feature of this pump is that by removing two bolts the valves can be readily taken out and repaired. The air chamber is made of 2½-inch steel tube. The handle is wrought steel, so as to enable the operator to get up a pressure of 200 pounds or more if necessary. It is fitted for two strings of discharge hose.

Myers Perfect Double Acting Barrel Spray Pump Construction and Durability

The material used in the construction of the Myers pump is the best that can be bought for the purpose. The stand is made of the best cast iron and steel. The cylinders are seamless drawn brass or brass lined iron; the latter is always recommended where it can be used, as it combines **wearing quality and strength**. The valve seat is of glass, which is positively non-corrosive, and will not harden the leather, a feature belonging absolutely to the Myers pump, and without which no pump can be perfect. The check valve is of the poppet style, which rises clear of the seat at each stroke of the pump, allowing it to clear itself perfectly; the old style hinge valve is out of date. Buckets and valves are made from the best oak tanned leather, all cut to exact thickness and **pressed dry** by means of our patented process. The reason a great many pumps do not give satisfaction is because the manufacturers use cheap leather of an uneven thickness. There is no reason why a pump will not give satisfaction and last for years if constructed as above.

WARRANTY—All Myers Pumps are warranted to be made of first-class material and free from flaws, and when properly set and operated, to give satisfaction to any reasonable person.

World's Fair Award: "Myers Spray Pumps—Good construction and workmanship; also operation."



No. 655—Complete excepting barrel, consisting of Perfect Barrel Spray Pump, complete with 1-inch suction pipe, strainer, two leads ½-inch three-ply discharge hose, each 5 feet long, two graduated Vermorel nozzles, and either jet or dasher agitator (state which). Price\$16.00

Price List, Represented by Fig. 1150—Myers O. K. Spray Pump, as shown (with barrel)\$15.00
Superior Hose, our brand, per foot30
Nozzles, hose attachments, pipe extensions, etc., see list.
Barrel, \$2.50 extra.

We carry a complete line of Meyer's Hay Tools. Write for illustrated catalogue and prices.

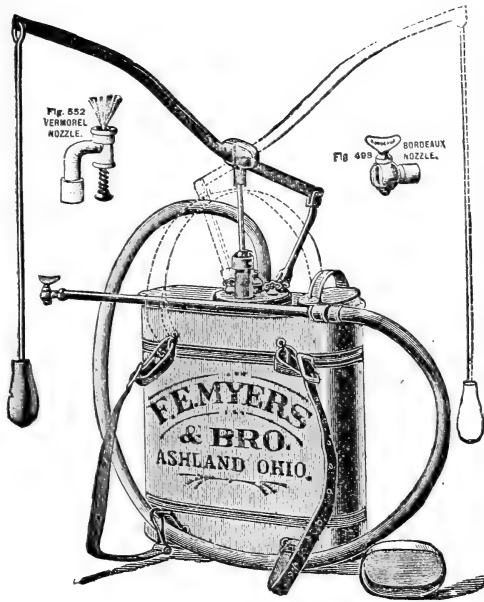


Fig. 547.

A FIRST CLASS OUTFIT AT A REASONABLE PRICE.

Knapsack Spray Pumps

With Patent Agitator and Brass Ball Valves. A Convenient Outfit with which from Four to Six Acres of Vines can be Covered in One Day.

Fig. 547 represents the Myers Knapsack Spray Pump. The tank holds 5 gallons, and is fitted with lid and strainer, which can be removed. The Pump is our regular Brass Bucket Spray Pump, with large air chamber, brass ball valves, solid plunger and agitator. We wish to call attention to the fact that this is the only knapsack outfit on the market with an agitator. It is so arranged that no water can drip on the operator. The pump can be removed easily. The pump is also fitted with handle, so the operator can use it the same as uor tank with bucket pump, viz., set the knapsack on the ground and work pump with handle. Can be carried by hooking snap in staple on the opposite side, provided for that purpose, making a neat handle, as shown by dotted lines. The handle lever can be shifted from right to left shoulder, at will. Has brass stop cock at end of hose, as shown in cut.

The Myers Galvanized Iron Knapsack Spray Pump

No. 547—The Myers Galvanized Knapsack Spray Pump, fitted with 5 feet of $\frac{1}{2}$ -inch hose, pipe extension and Bordeaux or graduating Vermorel spray nozzle, which can be graduated from a fine mist spray to a solid stream or shut off entirely, price\$7.50

Any other nozzle furnished with these pumps when ordered.

Graduating Vermorel Nozzle.

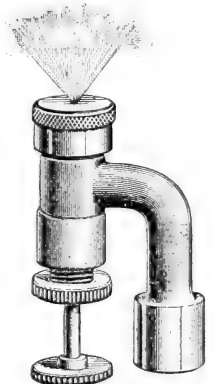


Fig. 763.

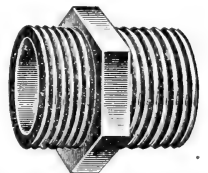


Fig. 540.

Brass Hose Nipple

Brass Hose Nipple—Size	$\frac{3}{4}$ -inch	1-inch
Price	.....\$0.30	\$0.40
Extra Length for Agitator—Size	$\frac{3}{4}$ -inch	1-inch
Price	.....\$0.40	\$0.50

Graduating Vermorel Nozzle

Fig. 763 is constructed on the general plan of the regular Vermorel nozzle, with the improvement that the spray can be graduated from a fine mist up to a solid spray, carrying the stream a much greater distance, or can be shut off entirely. This is accomplished by adjusting the screw plunger as shown in the sectional view, by means of thumb nut. The degorger is operated by the screw plunger instead of spring.

Graduating Vermorel, fitted for $\frac{3}{4}$ -inch pipe, each	.....\$1.00
Graduating Vermorel, fitted for $\frac{3}{4}$ -inch hose, each	.....1.25
Regular Vermorel, fitted for $\frac{3}{4}$ -inch pipe, each	.....1.00
Regular Vermorel, fitted for $\frac{3}{4}$ -inch hose, each	.....1.25

Little Giant

Fig. 639—Little Giant Brass Spray Pump, with agitator, complete with hose, Imperial combination fine, coarse, spray and solid stream nozzle, malleable foot rest and an 8-foot pipe extension. Price\$3.25 For Vermorel or Bordeaux nozzle on either of above pumps, add to list50

Always Use Pipe Extension—You Get Better Results. No. 632—Myers Lever Bucket Spray Pump, with agitator complete with hose and graduating Vermorel fine, coarse spray and solid stream nozzle. Price\$5.00

This spray pump is constructed entirely of brass, a material that is not affected by the poisonous arsenites used in different formulas for spraying fruit trees, vines and shrubbery. It is so arranged that the labor of pumping is all done on the downward stroke of the piston, and nothing on the up. The effect of this operation while pumping is to hold the pump down. The footrest steadies the pump, holding it in proper position. It is provided with a large air chamber, and has ball valves; the pressure is held uniformly in the air chamber and on the hose, so that the nozzle throws a continuous spray, and is not affected by the movement of the plunger. The operator is enabled to keep a constant pressure on the nozzle of from 50 to 100 lbs. with very ordinary exertion. Will throw a solid stream 50 feet, and is of unusual value for washing windows and buggies, extinguishing fires, sprinkling lawns, flowers, etc. For spraying it is arranged so as to discharge a fine jet in the bottom of the bucket, to keep the solution thoroughly mixed and agitated, a feature peculiar to this pump only, and a very necessary feature to a spray pump.

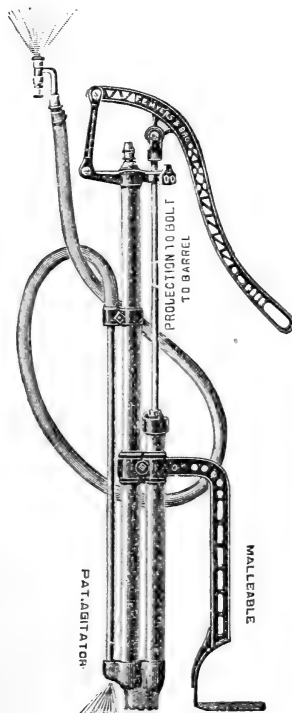


Fig. 632.

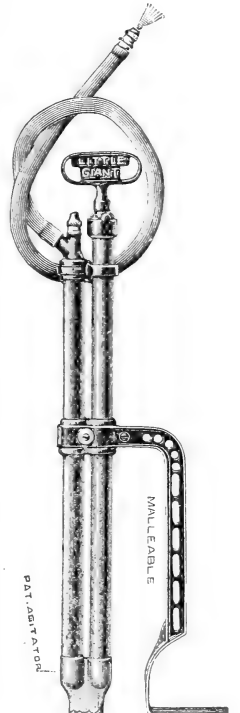
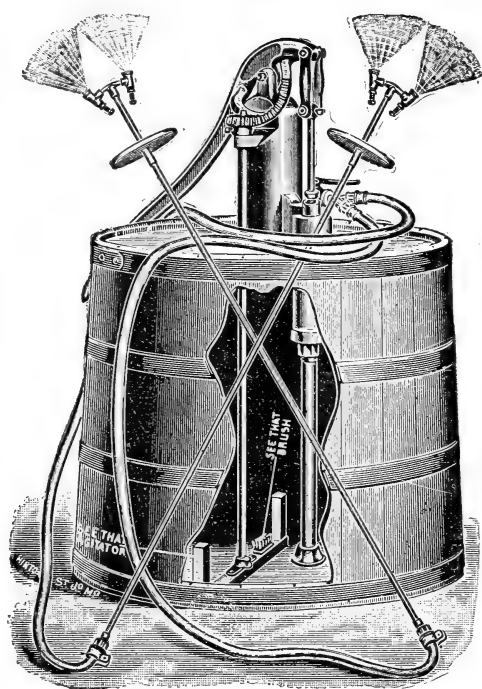


Fig. 639.

We carry a complete line of Myer's Hay Tools. Write for illustrated catalogue and prices.



Empire King SPRAYING PUMP

**Mounted on One Hundred-Gallon Tank
With Two Leads, Complete**

Fig. 118—Outfit "A"—Empire King—No hose or nozzles
on 100-gallon tank\$25.50

Fig. 118—Outfit "B"—Empire King—With 10-foot hose,
5-foot extension pipe and double Vermorel nozzle, on
100-gallon tank 28.50

Fig. 118—Outfit "C"—Empire King—With two 10-foot
leads of hose, two 5-foot iron extension pipes and
two double Vermorel nozzles, on 100-gallon tank.... 33.00

The Empire King Spraying Pump

WILL SPRAY 100 TREES PER HOUR.

Has Automatic Mechanical Agitator, which insures the Perfect Mixing of the Poison and Water, and an Automatic Brush for Keeping Strainer Clean.

You cannot scorch foliage with this pump. Has a seamless brass cylinder $2\frac{1}{2}$ inches inside diameter, 8 inches long, with solid brass plunger and rod, brass valves without leather or rubber, and brass screw spout with stop cock. This agitator works in connection with cogs from the lever, connecting with a companion gear at the upper end of the steel shaft; at the lower end of the shaft is a horizontal wooden bar, to which are attached two upright paddles. Thus when the lever is moved upward or downward these paddles travel in a semi-circle in bottom of cask and prevents the poison from settling.

The pump has a fine brass strainer at bottom of suction pipe. It also has a brush on the agitator arm which swings under the suction strainer and keeps it clean. Hence no clogging of pump or nozzles. This pump has a long lever, works easily, and is guaranteed in every respect.

The air chamber is large, which insures an even flow, and the stop cock on the spout is a valuable feature of this pump. Weight, not including barrel, 55 pounds.

See that Brush; it keeps the Strainer clean.

When not wanted for spraying, the agitator may be disconnected and this pump can be used for any purpose about the farm. It will pump acid, oil or water.

See those Paddles; they stir and thoroughly mix the poison and water.

Remember every King Pump is furnished with a Shut-Off Cock, and our complete Agitator and Brush, without extra charge.

Directions for mounting are furnished with each pump.

PRICES, ETC.

Pump and Outfit "A"—Empire King Pump, with single Brass Spout and Shut-off Cock; also with galvanized suction pipe and brass strainer; no hose or no nozzle\$13.50

Pump and Outfit "B"—Empire King Pump, with single Brass Spout and Shut-off Cock; also with galvanized suction and strainer, and with one 10-foot lead of heavy hose and one Niagara nozzle; no barrel 16.00

Pump and Outfit "C"—Empire King Pump, with double Brass Spout and Shut-off Cock; also with galvanized suction and strainer; also with two 10-foot leads of hose and with two Niagara nozzles; no barrel 18.50

Additional hose at 14c per foot. 50-gallon barrel, \$2.50 extra. 100-gallon barrel, \$6.50 extra.

Arsenate of Lead is best for liquid spraying.



The "Orchard Monarch"

A Grand Automatic Spraying Machine

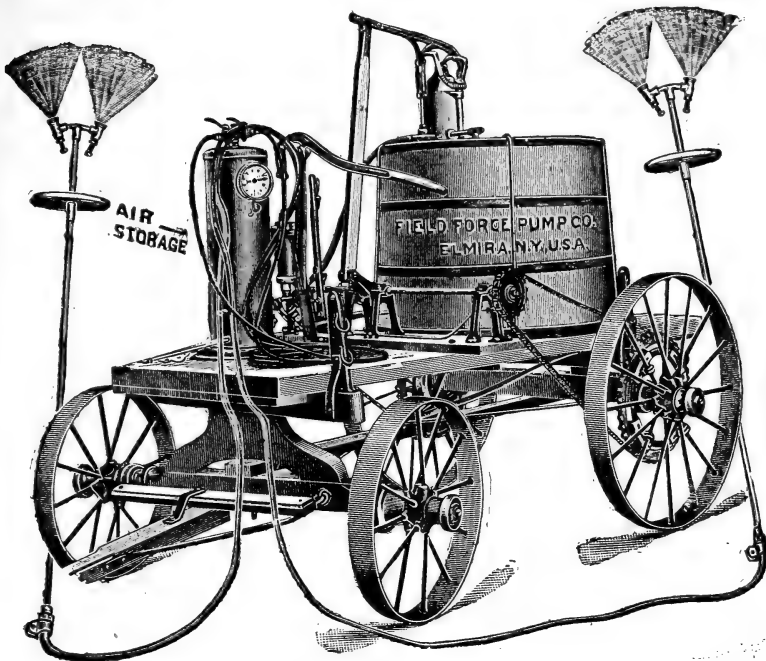


Fig. 92.

The tank here shown holds 150 gallons; on this tank is mounted our double brass cylinder pump, having agitator same as in Fig. 63, and with automatic brushes to clean suction strainers. The pump is operated by a crank shaft and sprocket gears as shown, and a lever throws the machine in and out of gear. The pump on the tank is connected with the large chamber shown on the front of the wagon, this chamber having a storage capacity of about 12 gallons. In driving from tree to tree the pressure is pumped up automatically to about 130 lbs., and this pressure with the 12 gallons of liquid in the chamber is sufficient for spraying one full-grown apple tree after the machine has stopped. A hand pump with brass working parts is connected with the tank and chamber, and can be used if more than five minutes should be required. The wagon has iron wheels with 4-in. tires, the front wheels turn under platform. The gear board is adjustable for taking up slack in sprocket chains, and the wagon has pole for two horses (no whiffletrees or neckyoke).

Remember that in going from one tree to the next you get plenty of storage to stop still and spray a whole tree or half on each side, though of course you can usually spray smaller trees while driving by. It is surely the grandest spray in the world, so pronounced by everyone who has ever tried one, and no owner of ten acres of orchard can afford to be without one. It soon pays for itself, for two men can do as much as a half dozen could with barrel sprays, thereby effectively doing the work of a large orchard just at the right time. Many large orchardists have three or four machines.

Price of Outfit complete, as above, including two 10-ft. leads of hose, two 10-ft. extension pipes, two shut-off cocks and two double Vermorel nozzles, with the necessary couplings\$135.00
Extra hose, 14c per foot.

F. O. B. Kansas City, \$135.00.

FIGURE 63, PRICES, ETC.

- Pump and Outfit "A"**—Empire King Pump, with single Brass spout and shut-off cock; also with galvanized suction pipe and brass strainer; no hose or nozzle, no barrel\$13.50
Above outfit mounted on 50-gallon solid oak barrel 15.25
Above outfit mounted on 100-gallon clear pine tank 23.00
- Pump and Outfit "B"**—Empire King Pump, with single brass spout and shut-off cock; also with galvanized suction and strainer, and with one 10-ft. lead of heavy hose and one double Vermorel nozzle, one 8-ft. iron extension rod with shield.....\$16.75
Above outfit mounted on 50-gallon solid oak barrel 18.50
Above outfit mounted on 100-gallon clear pine tank 26.25
- Pump and Outfit "C"**—Empire King Pump, with double brass spout and shut-off cock; also with galvanized suction and strainer; also with two 10-ft. leads of hose and with two double Vermorel nozzles, two 8-ft. iron extension rods with shields.....\$20.25
Above outfit mounted on 50-gallon solid oak barrel 22.00
Above outfit mounted on 100-gallon clear pine tank 29.75
If additional hose is wanted add 14c per foot. This hose is especially made for spraying work and is of a very superior quality.

Arsenate of Lead is best for liquid spraying.

Has storage capacity in the large chamber shown on front of wagon, hence no hand labor is required, the revolution of the rear wheels of the wagon pumps the liquid and stores the pressure in the chamber.

A Pressure Gauge is Furnished in the Hydraulic Chamber.

Sprayer Supplies



Fig. 5

BAMBOO EXTENSION ROD, ETC.

4 feet, 90c; 6 feet, \$1.40; 8 feet, \$1.75; 10 feet, \$2.00.

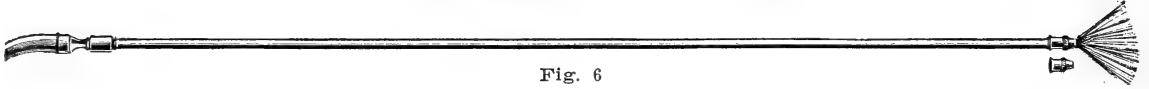


Fig. 6

GALVANIZED IRON EXTENSION ROD, ETC.

Any length desired at 8 cents per foot with coupling

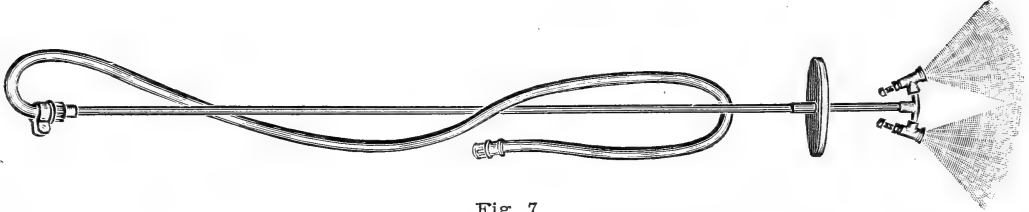


Fig. 7

EXTRA LEAD, COMPLETE.

10 ft. hose, 8 ft. galvanized Iron extension rod, double Vermorel nozzle and hand chemical shield and couplings. Price \$3.50.

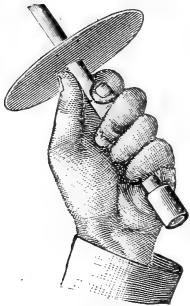


Fig. 90

SHIELD

For Extension Pipes

Protects the hand and arm from the liquids which drain back down the pipe.

Price Galvanized for 1-4 inch...25c

If sent by mail add 5 cents for postage

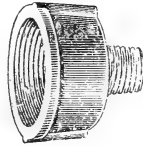


Fig. 69

HOSE NIP

For attaching 1-4 nozzle to 3-4 hose couplings.

Price, brass....20c

Postage 5 cents

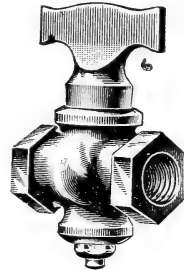


Fig. 74

SHUT-OFF COCK

All Brass

PRICE

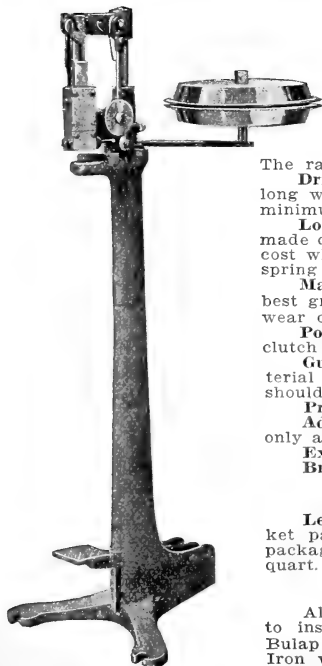
1-4 inch\$.60

Postage 5 cents

3-4 inch 1.00

Postage 15 cents

Advance Wire Stapling Machine No. 1



Wire Stapler

We beg to call attention to our Advance No. 1 Wire Stapling Machine, illustrated on this page, as a simple, reliable, and moderate priced article. This machine is an improvement over all others. It is substantially built of the best of material and by the highest class of mechanics.

Feed—The wire feed arrangement is reliable and will not let wire slip or feed short staples. This feed is operated by a tool steel pawl acting on a ratchet of large diameter. The increased leverage due to large ratchet and easy feed of wire makes this machine much easier and smoother than other staplers. The tension is held by a spring in place of a weight, doing away with jumping of the tension roll.

The ratchet and feed wheel are cut from steel, hardened, making them long lived.

Driver—This part is made of the finest tool steel and given the proper temper, insuring long wear; can be reversed, giving an additional cutting edge, reducing cost of repairs in a minimum. The trip is covered by the face plate, which protects it from dust and injury.

Loop Bar—We also call attention to our loop bar as an exceptionally good feature. It is made of tool steel rod held in place by malleable iron casting, and can be replaced at a trivial cost when worn out. Our machine is the only one on the market that does not require a spring to hold loop bar in place.

Materials—All screws, studs, etc., are made of steel, extra large and strong. Casting of best gray iron. Wearing parts of best grade tool steel where it is suited. All parts subject to wear can be duplicated.

Power—This machine is built for belt power, when wanted, and is fitted with friction clutch and pulley.

Guarantee—We guarantee our machine against faulty material or workmanship, and will gladly replace any part that should prove defective up to one year from date of sale.

Price, complete, \$25.00.

Advance No. 2 Wire Stapling Machine, just like the No. 1. only a little lighter stand. **Price, \$22.50.**

Extra Coils of Wire, \$1.25.

Brads—Per lb., 15c; 5 lbs. and over, 10c.

Berry Boxes and Crates

Leslie Oblong Style—This is the old stand-by style of market package, and a great favorite. A very neat and strong package. Boxes hold wine measure quarts—about 4-5 regular quart. **Crates, per 100, \$7.50; boxes or fillers, per 1,000, \$3.00.**

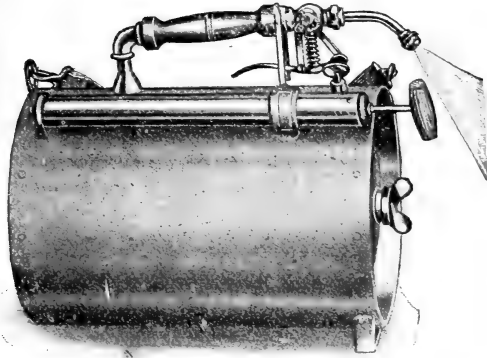
MATERIAL STRAINER.

All mixtures must be carefully strained into barrel or tank to insure perfect uninterrupted service of pump and nozzles. Bulap will not do on account of the lint which clogs nozzles. Iron will not do, as it is eaten up in a day or two. Heavy cloth strainers will last a lifetime. 12 inches in diameter, screen set at anti-clog angle. **Price, each, by express, \$1.25.**



Material Strainer

The Lowell Fountain Compressed Air Sprayer

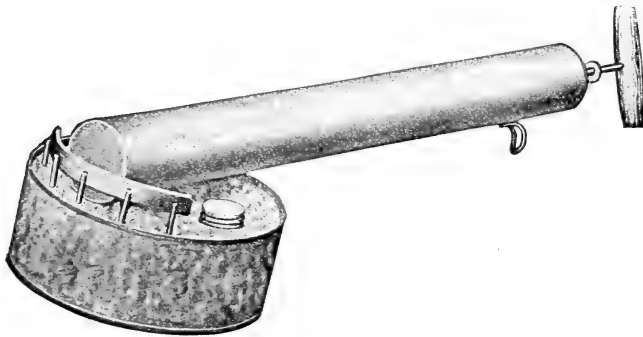


Better than ever. No complicated parts to get out of order. Does not require constant pumping like other sprayers. One charge sufficient to expel entire contents of tank. Each sprayer thoroughly tested with both air and water pressure. Machine can be easily washed and aired after using. New automatic thumb lever valve shuts off instantly. A child can operate it. No packing or springs to wear out in the valve. All working parts made of hard brass casting. Tree attachment and galvanized funnel with brass wire strainer for filling with each machine. The stamping, brass finishing and assembling all done in our own factory by skilled mechanics. Strongest sprayer made—will stand five times the air pressure necessary to operate. Convex heads, seamed, soldered and riveted. Capacity of tank three gallons. Handy to carry as grip, shoulder strap with each machine. Patented Del. 3, 1901. Price \$5.50 each.

Lowell Grand Sprayer

They have an air chamber in the end of the pump tube that prevents any moisture being drawn back on the valves. The pump tube is ~~ewtnty~~ ^{eight} inches long and the tapering form of the tank allows the use of two short straight brass solution tubes, which helps to make the sprayer easy to operate.

No corks to lose out—they have a screw cap where tank is filled. Only high grade material used in construction. **Strong, durable and satisfactory.** Will spray up as well as down.



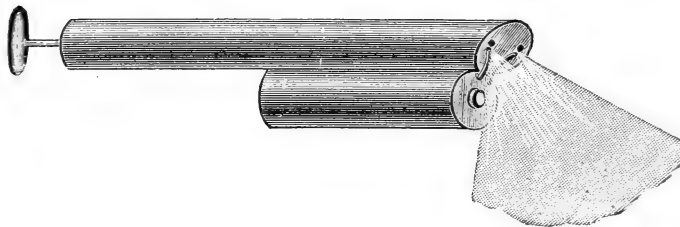
No. 11 "Jumbo" Lightning Sprayer

Patented.

Price, each, 85c.

The Jumbo has five brass tubes set in a circle, covering a radius of four feet. The air chamber is $1\frac{1}{4}$ inch in diameter and 20 inches long. The reservoir holds about two quarts and is made of galvanized iron. This is the largest atomizer ever made. The spray is like mist. It is adapted for spraying all kinds of plants and tobacco; also for oiling floors and for spraying cattle. We guarantee the "Jumbo" to do all that is represented.

"Lightning" Insect Exterminator No. 1



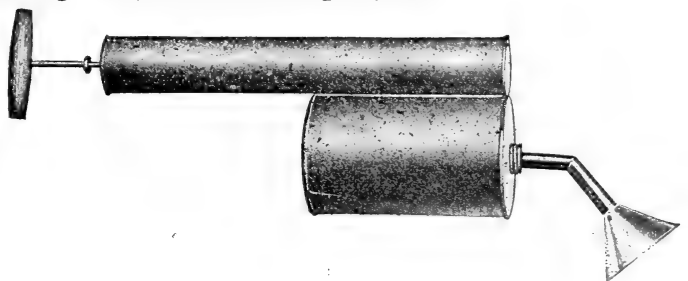
Price 50c

No. 12 "Lightning" Dry Powder Sprayer

Patent Pending.

Price, each, \$1.00.

Easy to operate, strong and durable, made of heavy tin, nicely painted. Will spray up or down or straight ahead, also under the leaves of plants, as the funnels and elbows are reversible—simply work the plunger back and forth, when it will produce a large or small blast. Useful for exterminating potato bugs, currant worms and all sucking insects. It will handle insecticide in the powder, such as paris green, hellebore and bug death; also used for tobacco plants and various other purposes. This machine is far superior to the old leather bellows, as it is much more durable and throws an even blast and is lighter and easier to operate.



The Dust Process of Spraying

Within recent years a new method of fighting insect pests and fungous diseases has been tried over a part of the fruit-growing section—namely using a powder, or dust, with which to cover trees and fruit, instead of the liquid process which has been so long in use. The difference between the two systems is simply that where one uses water as a conveyor of the poison and fungicides, the other uses lime dust. There is a difference of opinion among orchardists as to the relative value of the two systems, but one thing is sure: The dust process is decidedly better than none, and it is so much more easily used and more cheaply applied, there is an increasing number who use the dust or powder.

The times of application are the same as when the liquid process is used, except that it is necessary to spray oftener with the dust. This can be done, however, without increasing the total expense, for the work is much more quickly accomplished.

The first spraying is done as the buds are opening in the spring. A fungicide is made by using copper sulphate and lime, prepared in various ways, or one can buy the powder already prepared. The lime in itself is a fungicide, and the copper added strengthens it somewhat. When the time comes to add the poisons, Paris green can be added in a dry form to the lime dust, and here is an advantage which the dust process has over the liquid: The poison can be used much stronger than in liquid form. As is generally known, in the liquid form lime is added to neutralize the caustic effect of Paris green and copper sulphate. The quantity of lime which can be used is limited by the quantity which can be forced through the nozzle. With the dry process, the poisons can be used very strong, for there will be plenty of lime to neutralize its effect.

The dust gives best results where it is applied on leaves which are wet with dew or after a rain. Some growers begin dusting their trees at about 3 o'clock in the morning, and keep it up until the dew has evaporated from the leaves. The work can be so quickly done that a great many trees can be treated in this time.

A prominent advocate of dust spraying sprays twice before the blooms open, and after they have dropped sprays once a week for six weeks, and then at longer intervals until the first of August.

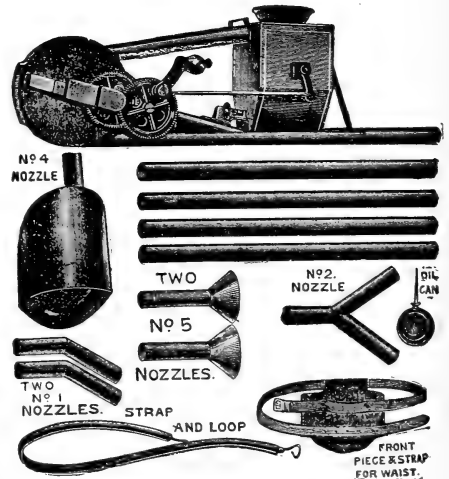
As to which shall be used remains for each one to say for himself. Each method has its advocates. The dust process, at least, should be used by thousands of orchardists who now do nothing to protect their fruit from the ravages of insects and fungous diseases. It can also be used by others whose trees are on such rough ground that a pump or tank cannot be hauled over the hills. There is no need for any one neglecting an orchard, for the work can be cheaply and quickly done, and the value of the fruit warrants an effort being made.

Parts Furnished with Each Champion Duster

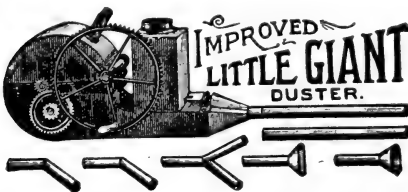


A good many separate attachments are furnished with every Champion duster to suit all kinds of work. Four sections of extension pipe for reaching any height desired. No. 2 is for putting on two leads instead of one. No. 1 is for making angle in pipe or in two leads, so as to throw dust down on plants. We now furnish two of No. 3 of an improved pattern which we call spreaders to scatter the dust out, just as the spray nozzle does on liquid sprayer. No. 4 is cover to put on end of pipe to hold over plants or bushes. We also furnish a wide belt to

buckle around the body to hold the duster and a shoulder strap to support the front of the duster. See small cut No. 1, showing duster in use on small plants. All parts come with machine without any extra cost. Price complete\$7.50



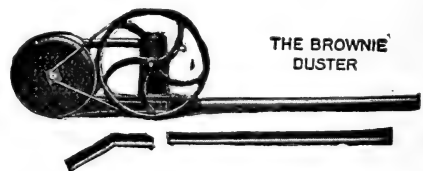
Little Giant Duster



The Little Giant is much like the Champion Duster, only about two-thirds its size. All metal and a good machine. A good garden tool.

Complete, \$5.50.

The Brownie Duster



is a still smaller machine, but does good work; all metal. Splendid for garden and flowers. A little dandy.

Complete, \$3.50.

Ladders

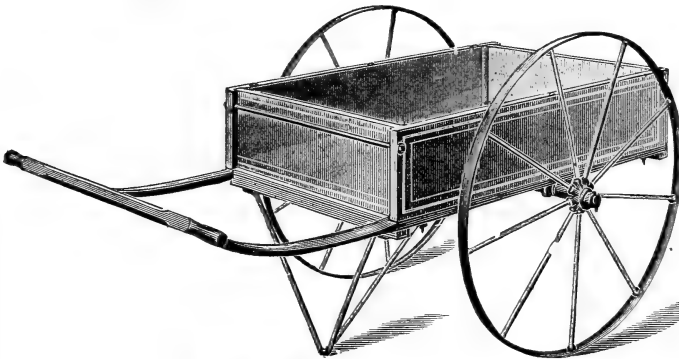
We submit herewith a few Ladders, which are not only necessary to the fruit-grower, but are also a household necessity. We call especial attention to the Fruit Picker, which is a time saver and almost indispensable for picking apples, as it can be put between the limbs, which is impossible with an ordinary ladder. As a rule your local dealer does not carry these in stock. Our prices are as low as they can be sold with a merchantable profit.



HOUSEHOLD STEP LADDER.
Price 16c ft.



COMMON STEP LADDER.
Price 15c per ft.



Dandy Hand Cart

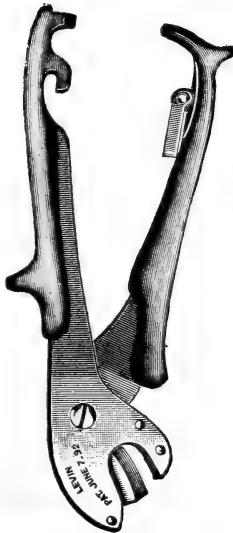
with wood wheels; box 24 in. wide x 36 in. long x 10. in. deep; removable end boards; 36-in. wheels; iron foot rest, bent; weight 90 lbs. Price \$8.00

A handy cart for all purposes around the farm.



EXTENSION STEP LADDER.

This is a very popular ladder with all classes of people and its sale increases very largely every year. Price 20c ft.

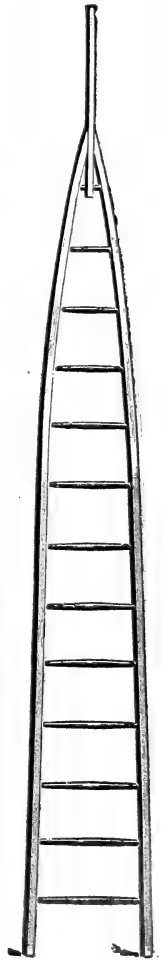


LEVIN PRUNERS.
Price 50c.

COMMON LADDER.
Price 12c ft.



FRUIT PICKER.
Price 18c ft.



These prices F. O. B. St. Joseph.

Pruning Shears



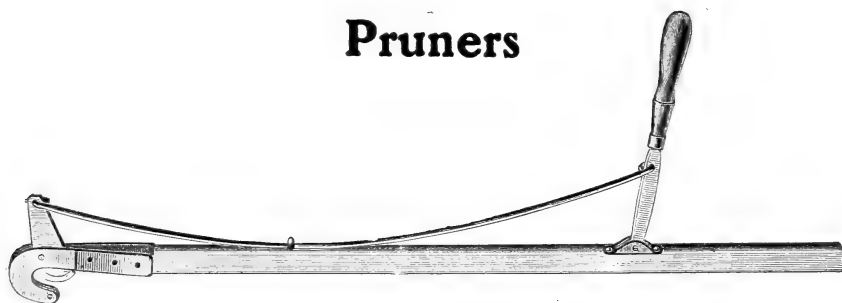
Buckeye, 2½-inch cut, hand-forged crucible steel blade, oil tempered and polished; 20-inch hard maple handles. Price \$1.25.

Hedge Shears



No. 101—9-inch polished hand-forged solid steel blade, notched; japanned steel ferrules; maple handles; entire length 25 inches. Price, each, \$2.25.

Pruners

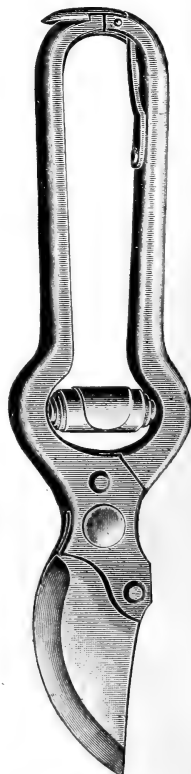


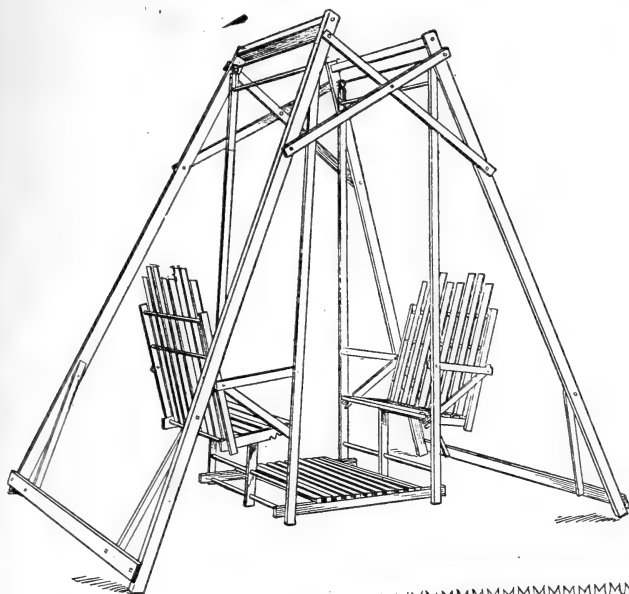
Waters Tree Pruner—Price: 10-ft., \$1.10; 8-ft., \$1.00.



No. 12 Pruners—Price 50c.

No. 130 Pruners—Price 75c.





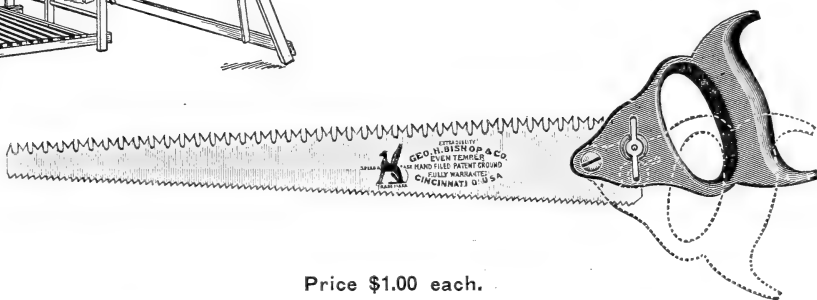
Goshen Lawn Swing

Four passenger. Height 9 feet; ground space, 6x9½ feet. The frame is strongly bolted; painted red; high back, adjustable chairs, of well-seasoned oak, natural wood finish and nicely varnished; the foot rest can be adapted to the proper height for children, or can be used as a hammock.

Price \$6.50, F. O. B. St. Joseph, Mo.

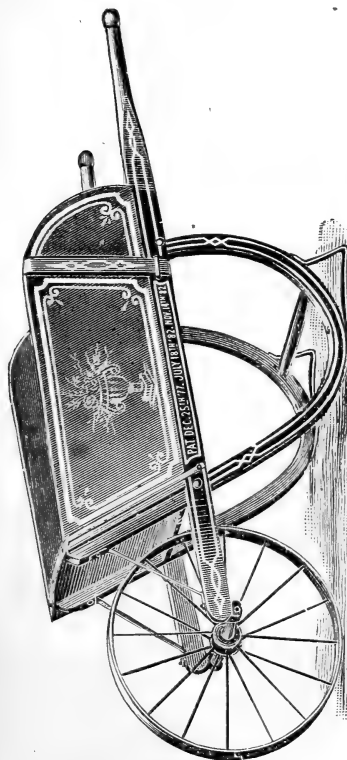
Pruning Saws

No. 15 Bishop.



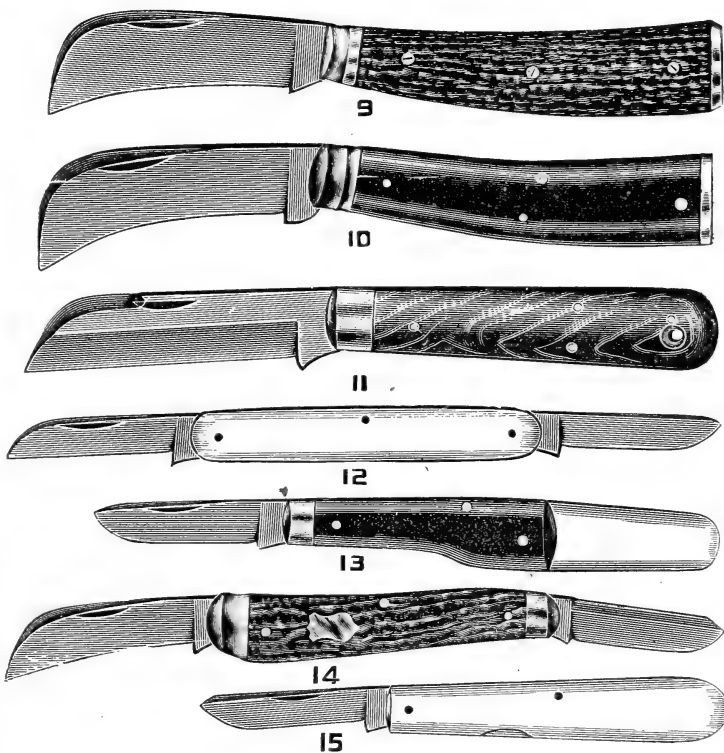
Price \$1.00 each.

Wheelbarrow



The Daisy Wheelbarrow, No. 6—Neatly painted and striped; braced and bolted; width of bed at rear, 11 in.; width at front, 17 in.; length, 28 in.; depth, 11 in.; jointless bent legs; 18-in. steel wheel. Price \$4.50.

Budding and Pruning Knives



Write for Prices on Knives.

Poultry Department

Poultry Supplies and Remedies

We are conducting the largest and best Poultry Supply House in the entire West. We can furnish you everything for successful poultry raising. Everything from a leg band to an incubator at factory prices. We want your trade. We can make you money by furnishing you at reasonable prices those necessities which make poultry raising and keeping both a pleasure and profit.

This is only a brief Price List. If there is anything you want more information on, write us. We cheerfully answer every inquiry. If you have never tried us—give us a trial order.

All prices f. o. b. St. Joseph.

Every shipment guaranteed or your money refunded.

All packages weighing one pound or more will be sent by express or freight, at cost of purchaser. For packages weighing less than one pound, add 1c per ounce for postage.

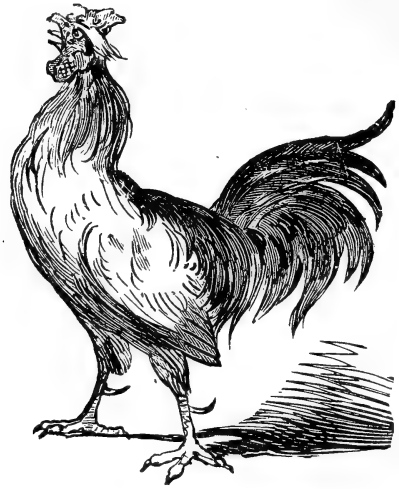
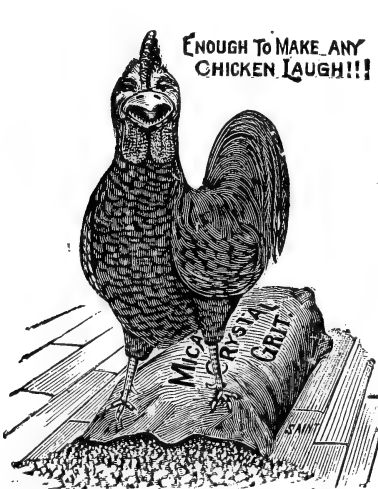
CRUSHED OYSTER SHELLS.

Oyster Shells are a great egg producer.

This is a most important article for the poultry yard through the winter, and should be liberally supplied to the fowls. It is also advisable to keep it before them during the entire year, as experience has proven they will eat it in the middle of summer. Our shell is made entirely of Oyster Shell, not clam, as much of that is offered, and is thoroughly screened from all dust and dirt.

It is now offered so cheap that it does not pay to try and grind or break up your own shell. We have it fine for young chicks and for mashes, and coarser for regular use.

Oyster Shells (crushed) furnishes the egg shell, 50-lb. bag, 50c; 100-lb. bag75c



MICA SPARR GRIT.

For Pigeons, Chickens, Ducks, Geese and Turkeys—Cheap, Clean and Sharp.

Microscopic analysis has proven that chickens do not die from Cholera. Microscopic examination of 100 gizzards recently taken from chickens supposed to have died from Cholera had no grit of any kind to digest their food, and in each case diarrhoea existed three or four days before death, and food had passed through gizzard just as eaten, proving that indigestion alone was responsible. Analysis furthermore proves that Mica-Crystal Grit is the only rock showing the combination of mica, quartz, aluminum, iron and magnesium, and this is essential to all poultry, or they soon droop and die. Disease will soon disappear when Mica-Crystal Grit is constantly kept in feeding pens, as nature expected it should be.

One week's trial will convince any one that it pays, and you will soon notice the blood-red combs, high yellow color of the yolks of the eggs, good health, and large increase in egg; and you will also learn to never be without Mica-Crystal Grit. Winter seems to be the natural season for its use, but it is now used both summer and winter.

Genuine Mica Grits, the best in the world, 50-lb. bag, 50c; 100-lb. bag	\$0.90
Genuine Mica Grits, (ground fine) for little chickens, 50-lb. bag, 50c; 100-lb. bag .....	.90
Cracked Bone, for large fowls, used by many large breeders, 50-lb. bag, \$1.25; 100-lb. bag	2.25
Raw Bone Meal, for chickens, to force growing, 50-lb. bag, \$1.25; 100-lb. bag	2.25
Beef Meal, dry, ground fine, for small chicks, 50-lb. bag, \$1.50; 100-lb. bag	2.75
Beef Scraps, green, ground coarse, for large fowls, 50-lb. bag, \$1.50; 100-lb. bag	2.75
Lee's Liquid Lice Killer, 1-qt. can, 35c; half-gallon, 65c; gallon .....	.90
Lambert's Death to Lice Powder, a well-known compound, 1-lb. can, 25c; larger .....	.50c and 1.00
Instant Louse Killer (powder), has a big reputation, 1-lb. can, 25c; larger .....	.50c and 1.00
Blood Meal, real red blood, dried, excellent, 10 lbs., 60c; 50-lb. bag, \$2.25; 100-lb. bag	4.00
Alfalfa Meal	2 1/2c lb.; \$2.00 per 100 lbs.

M. V. Special Chick Mixture or Blue Ribbon Chick Feed

Most poultry raisers realize that a special feed is required for little chicks from hatching to six weeks old. This is the critical time in the little chick's life. They require a flesh and growth promoting feed. Our feed contains the goods, a well-balanced ration of fifteen kinds of the best selected grains, meat meal, bone, etc.

Special chick feeds seem high priced at first glance, but people forget that our feed will go twice as far as ordinary corn chop, cracked wheat, etc., and you get results by losing none of your chickens; no bowel trouble or sleeping away.

We positively guarantee our feed as good as any on the market, and a great deal better than most of them; and our price is right.

Space does not permit us to give the hundreds of names of satisfied customers who have used our feed, but on request we will furnish them with pleasure.

Our sales the past year were 170,000 pounds, and we expect to double them this season.

To further show you our faith in our feed, we will positively guarantee satisfaction or money refunded.



Blue Ribbon Egg Force, for Large Chickens

Contains the same mixture as the Chick Feed, except in the whole grain. A guaranteed egg producer. 200,000 pounds sold last season.

Both feeds are a dry feed, and the only instructions necessary is to feed about one-half as much as ordinary feed.

PRICES BLUE RIBBON CHICK FEED.

25 pound Bag	\$ 0.75
50 pound Bag	1.25
100 pound Bag	2.25
500 pound Lots	10.00

F. O. B. St Joseph, Mo.

EGG FORCE.

25 pound Bags	\$0.60
50 pound Bags	1.00
100 pound Bags	1.85
500 pound Lots	1.60

F. O. B. St Joseph, Mo.



The "Triumph" Caponizing Set



There is no doubt in the minds of up-to-date poultrymen as to the advantages of caponizing. The operation is very simple, and with a "Triumph Caponizing Set" any boy twelve years of age can perform it with safety and thoroughness. Capons, as anyone knows, sell on the market as a rule from five to eight cents per pound higher than any other chickens. The demand for capons is always good, is steadily growing, and at this time a better market is assured the producer in this field than any other. Now is the time to get into the caponizing business, and the first thing to start right is to buy a "Triumph Caponizing Set." No more efficient, simple or more easily operated set is being offered the craft today than the Triumph, and you will make no mistake by selecting the Triumph set.

PRICES

Set in plush-lined, cloth-covered case.....	\$3.00
Set in polished hardwood box	2.75
Set in Japanese wood box	2.50

We pay transportation charges within the United States.

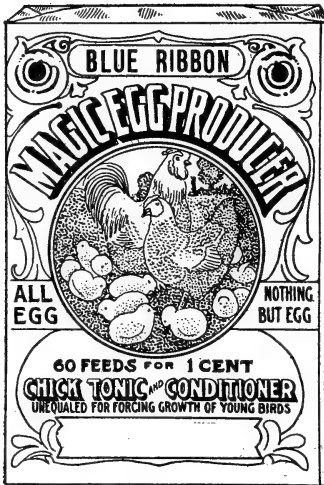
Remember

if you want a good Incubator or Brooder, Leg Band or Feed of any kind, we can for your money give you full value

Blue Ribbon Poultry Supplies

Once Tried, Always Used

Put up exclusively under our own label and backed by our positive guarantee to do the work in every case or Money Refunded.



Our Blue Ribbon Egg Producer

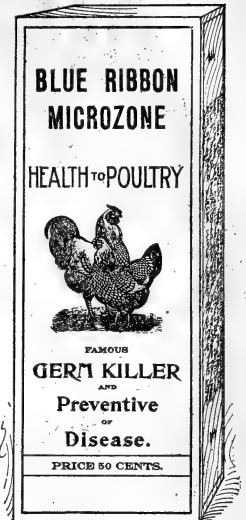
is the pure extract of eggs, and is not a poultry food or a cure-all. It simply makes eggs as if by magic. Its ingredients are in extract form, and each 2½ pounds are equal to 32 pounds of fresh beef. It supplies everything necessary for producing eggs, and when fed with this food, as directed on each package, has no equal as a magic egg producer. Every package guaranteed.

Price—2½-lb. package 25c
7-lb. package 50c

Microzone

Cholera cure and good health for poultry is well known, and will cure Cholera and Bowel Trouble in every case, or money refunded. It is a strong disinfectant and positively prevents disease in every form. One teaspoonful in one gallon of water does the work. One pint bottle makes 125 gallons. Order one pint for a trial, and we guarantee you will never regret it. Once used, always used.

Price, 25c per Pint.



Blue Ribbon Roup Cure

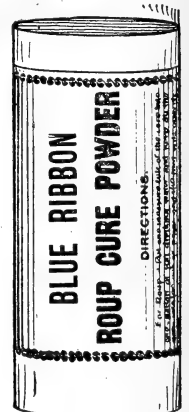
Positively cures Roup, Canker and Chicken Pox and prevents Cholera. Put up in powdered form in small wooden boxes. A small amount placed in the drinking water does the work. We have tested nearly all others, and finding this superior, ordered a lot put up under our special Blue Ribbon label, and we will personally guarantee every package to do the work or refund the price paid.

Price: 50c and \$1.00 sizes.

Our Liquid Lice Killer

is one of the strongest possible to produce and is double the strength of the ordinary liquid lice killer on the market. It is a sure shot Lice, Mite and Vermine destroyer, and no greasing and no dusting, simply paint, spray or pour a small quantity on roosts and perches and a strong gas odor is the result. This will remain for months and will in no way injure the poultry, but help them by killing all germs, disinfecting the entire yard from disease, as well as killing all lice and mites. We positively guarantee good results and the best on the market.

Price: 1-gal. can, \$1.00; ½-gal. can, 60c; 1 qt. can, 35c; 1-pt. can, 25c.



Conkey's Cholera Cure

Is a positive cure for Bowel Trouble, Indigestion, Diarrhoea, Dysentery, Cholera, etc., in fowls, both old and young. It tones up the system and puts the flock in excellent condition. A fowl which is troubled with disease of the digestive organs usually loses its appetite, but becomes very thirsty. Conkey's Cholera Cure takes advantage of this important point, as it is given in the drinking water, the fowl taking its own medicine. It is highly recommended for turkeys and pigeons. Prices, 50c per box, postpaid; makes 50 gallons medicine.

Conkey's Roup Cure

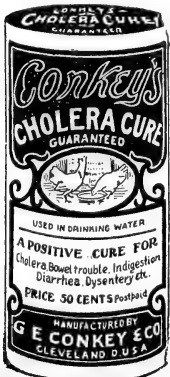
Conquers Roup—Roup is the most fatal and dreaded disease of the poultry yard. It is very contagious and quickly spreads through flock.

The Cause—It is usually the result of a cold, contracted in various ways, such as crowded houses, exposure to cold and damp weather, drafty quarters, filthy surroundings, which weaken the constitution of the fowls and make them subject to disease.

Symptoms—Sneezing, followed by difficult breathing. Discharge from the nostrils and eyes, which quickly thickens, becoming cheesy looking; rattling in the throat; offensive odor, loss of vitality, etc.

Treatment—Conkey's Roup Cure is a positive cure for all forms of this disease. We guarantee this. If it should fail, your money will be refunded—no questions, just money. If it is placed in the drinking water, the fowl takes its own medicine without knowing it, and you are relieved of any inconveniences. Coming in contact with the head and throat membranes, it kills the germs at once. It is quickly taken up by the system, and being a strong tonic and blood purifier, cleanses the blood and builds up the system. It is equally effective for Turkeys and for Canker in Pigeons.

Price, \$0.50 per box, postpaid; making 25 gallons medicine.
Price, \$1.00 per box, postpaid; making 75 gallons medicine.



Queen Incubators and Brooders

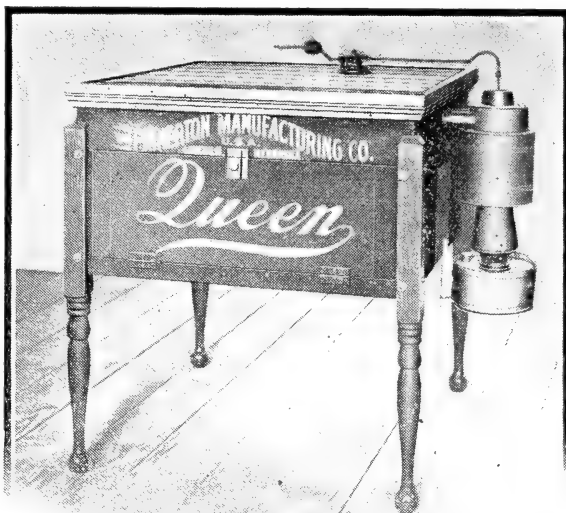
ARE HIGH GRADE THROUGH AND THROUGH.

"Queen" Incubators have faultless automatic ventilation; draughts are impossible; extra heavy copper tank and heater, with **Lock Seam Joints**, making them indestructible; heaters that use all the heat generated—no waste of oil; first quality California redwood double boxes; case within case, each lined with heavy asbestos felt—absolutely dead air space all around; automatic regulators that positively control the temperature; large, roomy burlap bottom, sanitary nursery trays, requiring no scrubbing or scraping; safety lamp with seamless galvanized bowl that cannot leak.

No experience necessary to run "Queen" Incubators; any one can do it.

Our catalogue shows fully the points of superiority; explains every part—why it is made, and how made. Every man in the "Queen" Factory is an experienced mechanic; every one of them work for the success of the "Queen"; it must be perfect. We know they satisfy the operator. State your own terms; we'll ship the machine.

Prices lower than any other standard incubators or brooders. Write for our 1907 catalogue. It is **free**, and shows why incubators and brooders are better than hens for hatching and raising chicks. It costs less to run "Queen" Incubators than feeding hens.



PRICES ON INCUBATORS.

F. O. B. St. Joseph.

60 size	.....	\$ 8.00
110 size	.....	10.50
160 size	.....	12.00
220 size	.....	15.50

Queen Brooders

EITHER INDOOR OR OUTDOOR.

Use less oil; no trouble to maintain heat in zero weather; perfectly ventilated, three different temperatures; chicks find their own comfort; no tin or black iron—only heavy Galvanized Sheet Steel—nothing to rust. Easy to clean; all parts handy to get to.



PRICES.

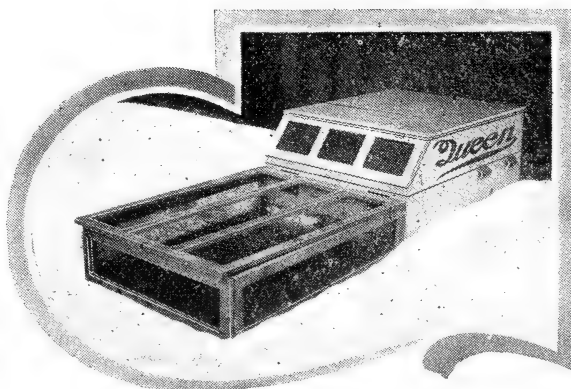
50 size	.....	\$ 5.25
100 size	.....	6.25
150 size	.....	7.75
200 size	.....	10.00

Leg Bands

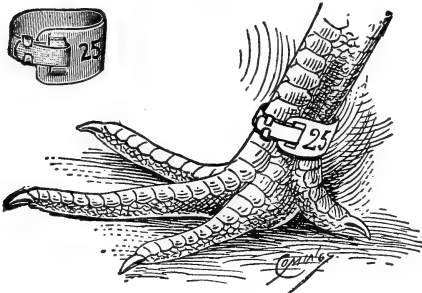
ALLERTON LEG BANDS.



Price 15c dozen, \$1.00 per 100



Improved Champion The Lightning Whitewash Leg Bands Sprayer and Force Pump No. 28



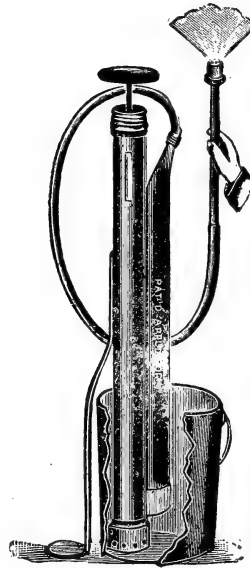
The oldest and most popular band on the market. This band is made in one piece, in two sizes, adjustable to fit any fowl. They will stay where you put them. Held by double lock, it is impossible for them to lose off. Made of aluminum or copper, in two sizes, large size for Asiatic class and turkeys, small size Plymouth Rocks and all smaller breeds. Price, postpaid, 12-15c, 25-30c, 50-50c, 100-80c. Numbered to suit.

Directions—Bend broad part of band on your finger to conform to shape of fowl's leg; put small end through loop, draw through until it fits loosely on the leg, turn the end back, then bend the two lugs over the loose end, as shown in cut; cut off surplus with shears.

Farmers' Caponizing Set



Farmers' Caponizing Set, price\$3.00
Book of instructions with each set.



This pump is used for a bucket spray and force pump, such as for spraying trees, shrubbery, garden use, vegetables, washing wagons, windows, etc., as well as for whitewashing. It will throw a continuous stream 35 feet high. It is very neat in appearance, as well as durable.

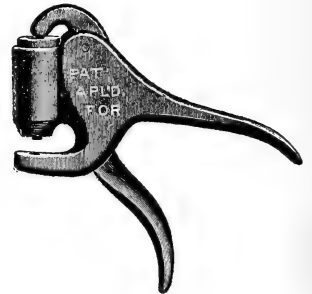
If so desired, we can furnish at a small extra cost three feet of brass extension rod, which will screw onto the extension already furnished with the pump. This is used for whitewashing where the ceiling is very high, and also for spraying trees.

This Machine Is Fully Guaranteed.

Price complete, galvanized iron, each\$2.00
Three-ft. brass extension rod with connections..... .50

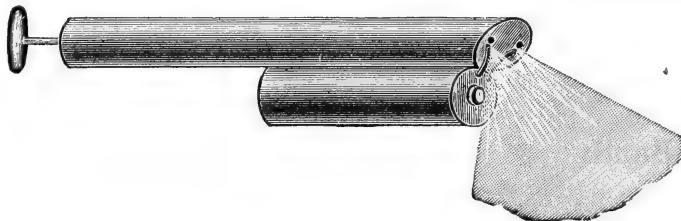


EGG TESTER.
Price, postpaid 45c.



Price, postpaid25c

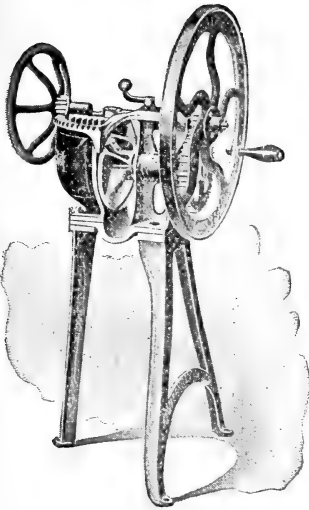
Double Tube Lightning Insect Exterminator



This Sprayer is made of heavy tin, and has the same size air chambers as our other sprayers; it is also provided with our patent spring expander, which keeps the leather open and prevents it from drying up. It is also made with our patent beveled air chamber, which is very necessary in many cases.

This sprayer is made with two brass tubes extending into the reservoir, which will not rust or corrode. We also make this sprayer with galvanized reservoir. Price, 50c.

Bone and Vegetable Cutters

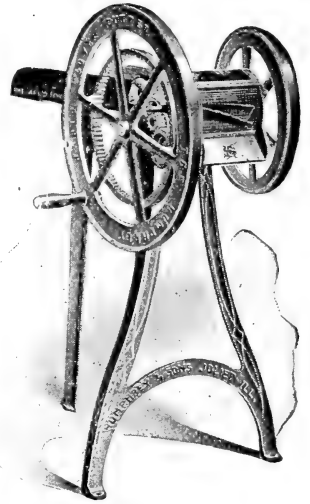


No. 1—Hand Power. Capacity, 10 to 200 hens. Weight, 120 lbs. Boxed for export, 27 in. x 24 in. x 14 in. Export weight, 160 lbs. Price \$10.00.

The secret of all successful feeding, whether human beings, live stock or fowls, is in securing what the scientific gentlemen call a "balanced ration"—that is, a sufficient quantity of food containing every element needed for sustaining life and energy.

Theoretically, that's why successful poultry raisers feed green bone and cut clover or alfalfa. Practically—and maybe that's more to the point—they feed both bone and clover, because experience has demonstrated beyond doubt that they produce eggs.

There are several good reasons why clover or alfalfa is a most valuable addition to the poultry ration. Of all the grasses they best retain the peculiar properties which render them so valuable as a food for all animals. They are rich in protein—and protein is what makes eggs.



The Humphrey Rapid Clover Cutter. Weight, with standards, 108 lbs. Weight, bench machine, 85 lbs.

The Humphrey No. 1 (Hand)

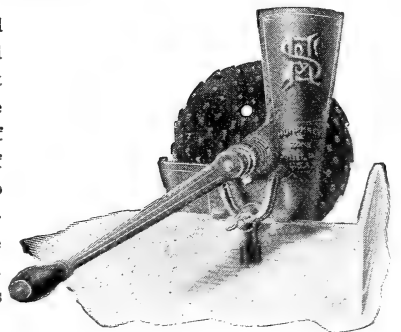
We recommend the Humphrey No. 1 for flocks of 10 to 200 hens. It is as small a machine as can be built on practical lines. Don't make the mistake of buying a "toy." It is only money thrown away. The Humphrey is a more strongly built and heavier machine than any other selling at the same price. It has a large open hopper, ready for large bones at any time. Powerfully back-gearred; heavy balance wheel; the anti-friction washer back of cutter-head becomes soaked in oil, and prevents cutter-head from heating, reducing friction to the minimum. Four heavy corrugated knives (oil tempered), boted to cutter-head, 9 inches in diameter. Bolts furnished with check nuts to prevent knives from loosening. Immense clearance back of cutting knife, making clogging impossible. Head castings have extra long bearings with hollow center filled with solid oil, which insures perfect lubrication at all times. Tail nut on top enables removal of wing, exposing all working parts instantly without use of wrench. Price \$12.00.

The Humphrey No. 2 1/2 (Hand and Power)

is a combined hand and power cutter of the same bowl capacity as the No. 2; intended for poultrymen who have power, but find it convenient to use the machine by hand at times when power is not in motion. We recommend this type of machine, believing that it represents the nearest approach to the perfect Bone and Vegetable Cutter. In capacity it is the fastest hand machine, and at the same time it can be converted into a power cutter in a moment's time. It has all the special features that have made the Humphrey Line of Open Hopper Bone and Vegetable Cutters so well liked by Poultrymen Price \$15.00.

Humphrey Cyclone Hand Corn Sheller

We recommend this sheller as it has so many features not found in other machines of this class. The sheller is complete in itself and ready to fasten to any box, when shipped from the factory, without drilling holes or turning screws. The thumb-clamp does it all. The spiral tension spring can be adjusted to the largest or smallest ear of corn, and, when set for an average ear, will run through a basket of corn without further adjustment, and the cobs will be clean. Owing to improvements made in this sheller, popcorn can be shelled without so-called "popcorn attachments." It has a turned shaft, with a large picker wheel of coarse staggered teeth, and a heavy ribbed frame. The Humphrey is a strong, thoroughly well built sheller, and all parts are interchangeable. A child can operate it. Price, \$1.75.



The Faultless Sprayer

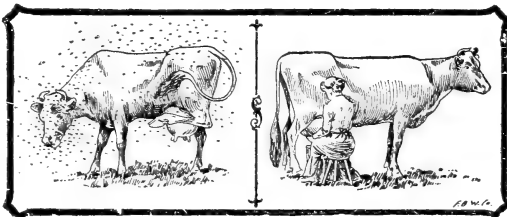


Made in brass and tin. Throws a spray as fine as mist. Kills, drives away and exterminates every living thing obnoxious to yourself, your animals or your crops. Is adapted for the destroying of every kind of insect. One-half tablespoonful of Paris green and once filling with water is sufficient to destroy all the bugs on 1,300 hills of potatoes.

The Faultless Sprayer is absolutely the best constructed sprayer of its class ever offered to the trade. For strength and durability it has no equal. The tapering point to air chamber gives great force to the spray, carrying it to the greatest possible distance. This tapering tube also allows the air chamber to be fastened to the tank in the most substantial manner. The tube of air chamber is soldered to top of reservoir and also supported by a broad strap of metal passing over point of tube. The point of air chamber and small tube through which the liquid passes are thoroughly protected from damage in use or shipping. Piston rod is spring steel wire and cup leather plunger. **Price List:**

No. 1 Faultless Sprayer, all tin, each\$0.60 No. 3 Faultless Sprayer, brass can, tin tube, each....\$1.00
Notice—Keep leather on plunger well oiled. Always clean reservoir with clear water before putting away.

Fly Bouncer



Guaranteed to keep flies away from stock.

1-gallon Can\$1.00
½-gallon Can60



EGG SHIPPING BASKETS.

Made very strong and durable; will hold from one setting to 100 eggs. Each, 10c; dozen, \$1.00.

DRINKING FOUNTAINS, STONE

Price, 1 quart15c
Price, 2 quart25c
Price, 3 quart35c

Egg Shippers

Eyrie Egg Shipping Boxes—Made of jute strawboard, very light and strong; one of the most popular boxes.

15 egg size, 15c each, \$1.25 dozen
30 egg size, 20c each, \$1.90 dozen

Uncle Ben's Improved Nest Eggs

Price, 60c per dozen.

The worst drawback in the poultry business is vermin, as it weakens the fowls and makes them liable to disease common among poultry.

Scientists tell us that one pair of lice may become the grandparents of 100,000 in two months' time, in warm weather.

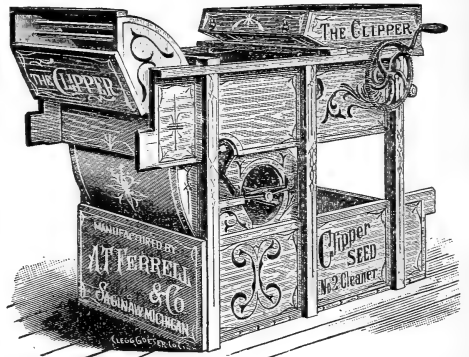
The liberal use of Uncle Ben's Improved Nest Eggs will prevent their increase during the summer months, and in winter when the lice are all on the fowls, the nest eggs will kill them or drive them off to perish in the cold.

Uncle Ben's Improved Nest Eggs will last one season and will not lose their strength. Positively not injurious to hens or their eggs, as our Improved Nest Eggs have none of the faults of the original Nest Eggs.

They answer the double purpose of nest egg and insecticide.

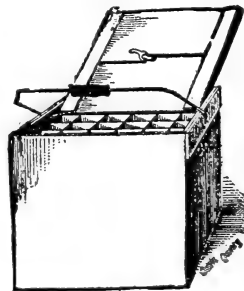


Clipper Hand Grain and Seed Mill



We are using this mill in our warehouses. The improved No. 1 hand grain and seed mill is the most complete grain and seed cleaner ever invented. It cleans any and all kinds of grain and seed grown in the United States, with once through, without any waste, and leaves no tailings to clean over. It will separate plantain from medium clover seed just as easy as any other mill can blow out dust. It has zinc sieves, vertical blast, and is the most complete farm mill ever invented. The capacity of this mill is large enough for a farmer, and when it comes to cleaning all kinds of grain and seeds this little dandy always takes a front seat. Seven out of the eight sieves used in this mill are made of perforated zinc, the best sieve in all the wide world, and the fact is, it is the best farm sieve on the face of the earth, and no mistake about it. Weight 150 pounds.

PRICE \$25.



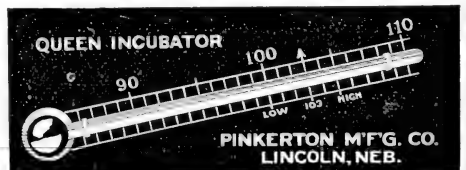
Handy Egg Case

12 dozen size..50c
15 dozen size..65c

China Nest Eggs

The kind that fools the hen.

Price: 2 for 5c,
5 for 10c, 12 for 20c



Incubator Thermometers, Postpaid, 60c.

Our Bird and Fish Department



MEXICAN DOUBLE YELLOW HEAD PARROT.

Of the more than 300 varieties of parrots this is without doubt the most popular and generally satisfactory, and many bird fanciers rate it as fully equal in ability and intelligence to the Gray African. If the teaching of these birds begins when they are young they learn to talk quite readily and become fluent. If properly handled they soon become very tame, nice pets and are quite apt in imitating peculiar sentences or witty sayings which they hear. This bird is frequently called the "operatic star," owing to its natural gift of song, his voice being clear and ringing. He soon learns popular airs and sings them off with surprising ability. Many wonderful stories are told of their singing powers.

It is quite a handsome bird; the body is of dark beautiful green color, with bright red, and some blue feathers on the edges of the wings and tail. On top of the head there is a spot of yellow, or pale orange color. This spot gradually extends over the head, so that on a bird one year old it is about one-half inch below the eye, and by the time the bird is four or five years old the entire head and neck is bright yellow, thus giving it a showy and some think a venerable appearance. The feet and beak are usually white; the tongue varies in color, some being white, while with other specimens the tongue is black, and sometimes spotted. If you desire a really good parrot we most strongly advise you to purchase a young hand-raised Double Yellow Head. We can furnish choice birds during the summer at \$7.50. They are usually higher late in the spring, while in June, July and August young birds can be furnished at a lower price.

MEXICAN RED HEAD PARROT.

This may well be called the pet of the parrot family. He is a very quiet and gentle bird, about the size of the Cuban, but is always tame and easily handled by any one, and therefore there is much pleasure in teaching them. They are considered about equal to the Cuban parrots in speaking ability and are not so noisy, more closely resembling the Double Yellow Head. They learn very rapidly and become excellent whistlers and singers in addition to their talking abilities. We know of one case where one of these birds was so well trained that it was disposed of to a dealer for \$75.00 cash. The color is a lively green throughout, with the exception of a bright red spot on the head. Price \$4.00 each during the summer season.

GUARANTEE EVERY PARROT.

With each parrot which we sell we will send, if requested, full instructions as to its care and also how to train and teach it to talk. We will also send a written guarantee that if the bird does not learn to talk within six months it may be exchanged. If you already have a parrot it will pay you to buy a copy of our new book, "Feathered Pets," as it contains much of interest in regard to them and full instructions for teaching, food and care in both health and sickness. We handle a great many parrots, and ship to almost every state in the union. Our specialty is first-class young hand-raised birds. Trapped birds can be bought cheaper, but they are rarely satisfactory and seldom learn to talk. It is well to remember that parrots are always cheaper during July and August, but they are also young and more tender, and require careful attention as to feed, etc., for a few weeks.

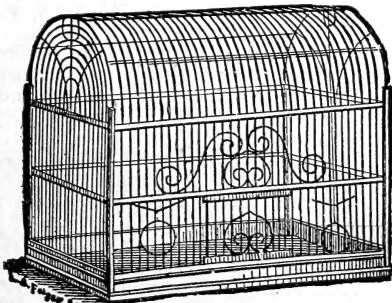
PARROT CAGES—PRICES.

All Metal, Except Perches. Round, like cut.

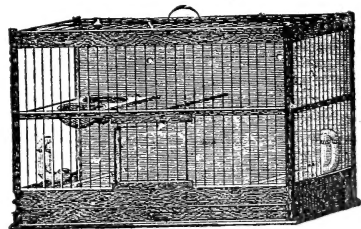
14 inch	\$2.25
16 inch	2.50
18 inch	3.00

Russian Sunflower Seed, for Parrots, 20c per pound, postpaid.

MOCKING BIRD CAGE.



BREEDING CAGES.



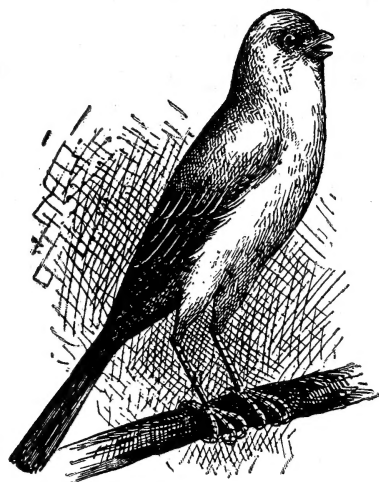
Size 24 inches long, 14 inches high, 12 inches wide. Price\$2.25

Same as above. Price\$2.25

Birds, Gold Fish and Supplies

Canary Birds

HARTZ MOUNTAIN CANARIES.

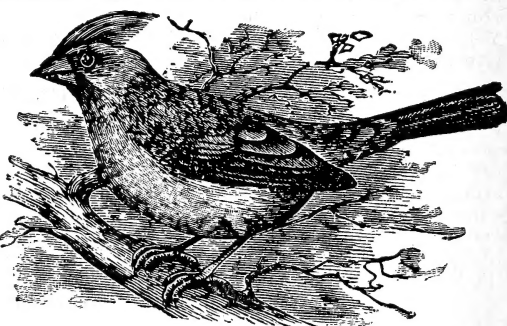


These beautiful song birds are a specialty with us, and we consider them the most satisfactory birds for the people. They are bred in Germany, high up among the Hartz Mountains, and are famous for their clear, pure, beautiful song. There is no comparison between these and the common American "screeching" canary, whose choppy notes are at times almost ear-splitting. The music of the Hartz Mountain birds is a most restful melody, and they endear themselves by their cheery song, bright plumage and active ways. These beautiful birds are the most loved of all cage birds, and their cheery song is almost incessant. Being raised in the mountainous region, they are more hardy and require less care than any other bird. They are perfectly happy in the cage, and are the most satisfactory and best bird in the world. When our shipments arrive from Germany each bird is tested and known to be in full song before we permit them to leave the store, and we guarantee every one to be a good singer. In color these birds vary from pure golden yellow to whitish yellow; sometimes parts of the body will be pure white, many of them are mottled with brown, dun color, green or blackish green, and most customers prefer a bird which is marked to a clear color. Our cut illustrates a handsomely marked bird. If color is not mentioned in order, we always select a

choice songster without regard to color. We furnish the choicest male birds at \$2.50 each; second grade birds, \$2.25 each.

RED BIRD OR CARDINAL.

Sometimes called Virginia Nightingale. A very handsome bird, with brilliant bright red plumage, with a black spot around the beak and throat, which adds greatly to his appearance. The tuft of feathers on his head can be raised at will. His song, or rather whistle, is very sweet and pleasant. Should be kept in a mocking bird cage. Our Mixed Red Bird Seed is well suited to their needs. They can be bred in captivity. Price for choice male birds, \$2.50 each; females, \$1.00 each.



Book on Feathered Pets	25c
Bird Lice Powder	postpaid 12c
Birdoline, for sick birds	postpaid 20c

BIRD SEED—Finest Sicily Canary, Russian Hemp, German Summer Rape, Russian Millet, Russian Sunflower (for parrots), Finest Mixed Canary Seed. All 10c lb.; 3 lbs., 25c; 13 lbs., \$1.00; 30 lbs., \$2.00. By express only.

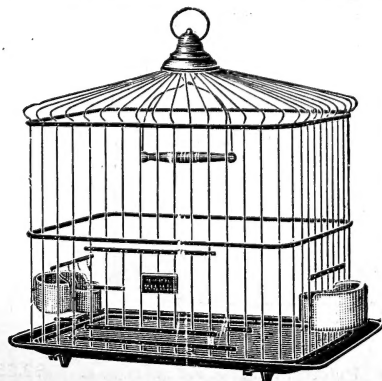
Our Superior Mixed Canary Seed cannot be beat.

BREEDING CAGES—Four sizes, \$1.50, \$1.75, \$2.25, \$2.75.

BIRD CAGE SPRINGS—Canary, 10c; heavy, 10c, postpaid.

WIRE BREEDING NESTS—10c; postpaid, 15c.

Kaempfer's Mocking Bird Food	35c
Bird Tonic	25c
Bird Manna	15c
Bird Gravel, by express only	10c



IMPROVED BRASS CAGE.

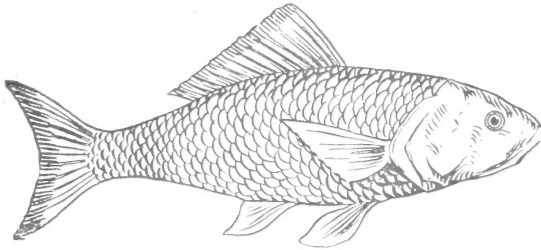
¼ This cage, which is well shown in our illustration, is of perfect shape, well made of the best brass wire and stamped brass base. It is supplied with swing, food cups and perches, and is the most popular cage now on the market. They are made in six sizes, the dimensions given being of body of cage; the base is, of course, much larger.

Size.	Price
5¼ x 8½ inches	\$0.75
6 x 9 inches	1.00
6½ x 9½ inches	1.25
7 x 10 inches	1.50
7¾ x 10¾ inches	2.00
8¾ x 11½ inches	2.50

If you want them with wire guard, add 50c extra.

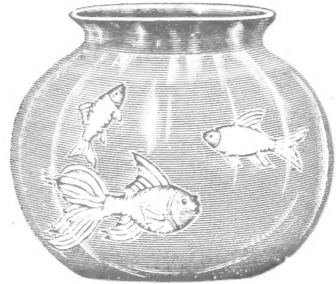
Gold Fish and Aquariums

Gold Fish

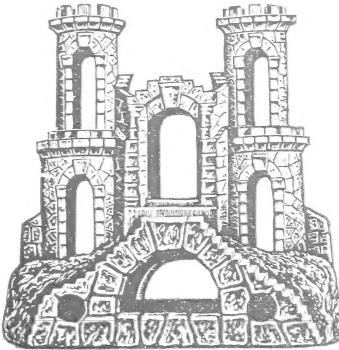


Small size, each, 10c; per doz., 90c.
 Medium size, each, 20c; per doz., \$1.90.
 Large size, each, 30c; per doz., \$2.80.
 Fantails, Imported Japanese, each, 40c; doz., \$4.
 Fish Food, 24 sheets, 10c.
 Water Plants, per bunch, 10c.

Fish Globes



Aquarium Castles



From 15c to \$3.00. Leave selection to us; by express.

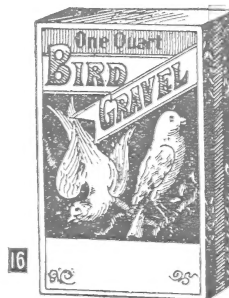
There is no nicer ornament in the house than a nice assortment of Gold Fish in one of our magnifying Globes, with Castle and Water Plant growing in same; they make nice pets.



Prices

1	quart	.....	\$0.25
1	gallon	.....	.50
2	gallon	.....	1.00
2 1/2	gallon	.....	1.25
3	gallon	.....	1.50

Bird Food and Supplies



See Prices Elsewhere in This Catalogue

